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ABSTRACT

The staff in the Department of Education analyzed the statewide evaluation reports of the Elementary and Secondary Education Act of 1965 Title I program in California for the 1972-73 school year and make certain general conclusions regarding each of several program components: (1) Title I students at all grade levels, on the average, attained more than one month's growth in reading skills for each month of instruction; (2) a majority of Title I students achieved gains equal to, or greater than, one month's growth in mathematics for each month's participation in the Title I program; (3) auxiliary services--this component provided pupil personnel, library, and health services and activities necessary to the success of project participants; major results included greater student achievement, more consistent attendance, and an improvement in the students' attitudes and self-images; (4) parent involvement--this component provided activities directed toward improvement of communications between home and school; (5) the intergroup relations component implemented activities designed to minimize isolation between the different ethnic groups; and (6) the staff development component provided inservice training to personnel working directly with the students. (Author/JM)

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Evaluation of ESEA, TITLE I Projects of California Schools

Annual Report 1972-73

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FOREWORD

Compensatory education is a program designed to meet the special educational needs of children from low-income and poverty backgrounds. It is based on a commitment to a new definition of equal educational opportunity.

Traditionally, educators and the public have spoken of equal educational opportunity in terms of sameness--the same textbooks, the same curriculum, the same class size, the same number of library volumes. We have held on to the myth that we were doing an equally good job with all our children, that all the schools were equal, that they all provided a similarly good education, and that aside from disciplinary problems, nothing was wrong with our schools in the ghetto. In other words, if the children failed, something was wrong with the children.

But with compensatory education has come a new concept. We have been forced to recognize that equal educational opportunity means an educational program geared to the needs of each child--a program that will give each child an equal chance to succeed to the maximum extent of his potential, regardless of his economic, ethnic, social, or cultural background.

The evaluations of California's compensatory education programs, including this one for 1972-73, have shown that when a concentrated effort has been made, the students have averaged one month of school achievement for every month of participation in the program. Previous data indicated that children from impoverished backgrounds tended to average only .7 of a month's growth for every month of instruction.

Our best results have been in the elementary grades. This is consistent with what educators have always believed to be true--we must reach disadvantaged children at an early age before frustration and failure become difficult, if not impossible, to overcome. We are talking about the difference between prevention and remediation. It is much easier to prevent the achievement gap from developing than it is to attempt to close the gap later.

Also essential is coordination and articulation between grades and grade levels to ensure that achievement gains are lasting and not merely dramatic, short-term improvements.

To be of maximum effectiveness, compensatory education programs must be comprehensive in nature, must start at an early age, and must continue until the student is able to maintain progress without extra help.

Compensatory education programs are not concerned only with students. High priority in California compensatory education programs is placed on improving school-community relations. And school-community relations is not a one-way street; too often, school officials think in terms

of the need to transmit information to parents, to improve the parents' understanding of school activities. There is an equal need for a structure whereby school officials can improve their understanding of the poverty area community they are serving and of the perceptions the parents have regarding the educational needs of their children. The advisory committees and other parent involvement activities are based on the recognition that educators cannot hope to improve the classroom performance of children from low-income backgrounds without involving their parents in the process.

Another required component of every compensatory education program is inservice education of the staff. Additional funds, new materials, smaller classes, and supportive services are all supplementary to the work of the classroom teacher. For, in the end, whether compensatory education is truly effective, or whether it becomes just another source of funds, depends on the quality of the teachers working with the children. The teacher, perhaps more than any other person, will influence the performance of the child. Often, a student's achievement level will tend to be a mirror of the teacher's--and the parents'--preconceived judgment of that student's capabilities. Let us design mirrors that reflect understanding, commitment, and pride.

Superintendent of Public Instruction

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PREFACE

According to the provisions of the federal Elementary and Secondary Education Act, Title I, and California's McAteer Act of 1965, an evaluation of the California compensatory education program is required annually. The California State Department of Education has the responsibility for making that evaluation, and the Department also has responsibility for disseminating information to school districts and other interested parties on the results of activities designed to strengthen the educational program for children from disadvantaged backgrounds.

California's ESEA, Title I, program was initiated in the spring of 1966. This report contains an evaluation of the program as conducted during the 1972-73 school year. Most of the Title I activities were operated by school districts for disadvantaged children regularly enrolled in school. However, specialized programs were also conducted for children of migrant agricultural workers, handicapped children in state schools and hospitals, children residing in state mental hygiene facilities and residence schools, and neglected and delinquent children in state and local institutions; the evaluation of those compensatory education programs is included in a separate report.

Major responsibility for the preparation of this state report was assumed by Howard Quan, Hubert Reeves, Malcolm Richland, Milton P. Wilson, and Daniel Zuckerman, Office of Program Evaluation and Research, California State Department of Education.

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Summary of the ESEA, Title I, Program in California, 1972-73

The staff in the Department of Education analyzed the statewide evaluation reports of the Elementary and Secondary Education Act of 1965 (ESEA), Title I, program in California for the 1972-73 school year and made certain general conclusions regarding each of several program components. Those conclusions are highlighted in the paragraphs that follow.

Language Development. ESEA, Title I, students at all grade levels, on the average, attained more than one month's growth in reading skills for each month of instruction. In addition, it was found that an average of 11 percent of the project participants moved out of the lowest quarter of the distribution of achievement test scores. Districts that offered English as a second language (ESL) reported that the success of ESL programs was directly related to the inclusion of program activities planned to meet specific goals and objectives.

Mathematics. A majority of Title I students achieved gains equal to, or greater than, one month's growth in mathematics for each month's participation in the Title I program. Here it was found that an average of 17 percent of the project participants moved out of the lowest quarter of the distribution of achievement test scores. Those with successful projects frequently reported the adoption of an individualized approach, the application of diagnostic and prescriptive procedures and instructional methods, and the use of motivation and content-oriented materials.

Auxiliary Services. The auxiliary services component provided pupil personnel, library, and health services and activities necessary to the success of project participants. Major results included greater student achievement, more consistent attendance, and an improvement in the students' attitudes and self-images.

Parent Involvement. The parent involvement component provided activities directed toward improvement of communications between home and school. Some of the major results were improvement in pupil performance, increased attendance at parent-teacher conferences, improved parental attitudes, greater participation in school meetings, and an increase in the use of parents as volunteers or aides.

Intergroup Relations. The intergroup relations component implemented activities designed to minimize isolation between the different ethnic, cultural, racial, or social groups. Major results included more general participation in activities, increased interaction between groups, more positive pupil attitudes, and broadened knowledge of the various group characteristics.

Staff Development. The staff development component provided inservice training to school personnel working directly with the students. Some of the major results were more general application of diagnostic and prescriptive teaching techniques, an increase in individualized instruction, greater attendance at inservice training meetings, and improvement in pupil achievement.

A General Look at ESEA, Title I, Program in California, 1972-73

Title I of the Elementary and Secondary Education Act of 1965 (ESEA) was designed to ensure that every child in the nation be afforded an opportunity to succeed educationally to the full extent of his potential regardless of that child's economic, social, or cultural background.

The child eligible for participation in Title I programs generally does not come to school as prepared for successful learning as do his classmates. He may lack experience, verbal and oral skills, and those educational values common to the general population of children in his age group. Poor health, inadequate nutrition, and an unstable home life may also interfere with the child's ability to participate and succeed in the formal learning process.

School districts participating in the 1972-73 ESEA, Title I, program were required to serve those students most in need. Target schools in the program were identified from school districts in areas with the highest incidence of poverty. Students selected for participation were primarily those who evidenced an academic achievement rate of seven-tenths of a year's growth or less for each year in school. During the 1972-73 school year, Title I programs served 343,627 students in California, which was approximately 40 percent of those eligible for the program.

The Title I projects implemented by California school districts had the following features:

- An expenditure of at least $330 per child
- Inclusion of six components: language development, mathematics, auxiliary services, parent involvement, intergroup relations, and staff development
- A statement of performance objectives for each of the six components
- Special consideration of pupils in the elementary school grades
- Use of diagnostic-prescriptive techniques in the language development component

School districts in California with Title I entitlements of less than $25,000 were required to join with other small districts within the state in comprehensive compensatory education projects. These were to be implemented cooperatively. During 1972-73 a total of 483 school districts participated in 77 such cooperative projects.

FUNDING FOR TITLE I PROJECTS

During the 1972-73 fiscal year, $109,854,528 in Title I basic funds were made available to California school districts. Additional Title I special funds were made available for certain projects: $8,501,500, for children of migrant workers; $1,688,000, for delinquent youths in California Youth Authority institutions; $1,477,000, for handicapped children in special state schools operated by the State Department of Education and in state hospitals operated by the State Department of Mental Hygiene; and $552,473, for neglected and delinquent youths in local institutions. The funding for these specialized projects increased the total of California's Title I program allocations to $122,073,501.

The scope of this evaluation report is restricted to those activities supported by Title I funds which were expended or committed by school districts up to June 30, 1973. The report does not include data from the 1973 summer school projects or for projects funded with monies carried over into the 1973-74 school year.

PARTICIPANTS IN THE TITLE I PROGRAM

In 1972-73 school districts reported that 343,627 students--from preschool through the high school grades--participated in Title I activities. Of the total number served, 97.3 percent of the students were enrolled in the public schools.

Enrollment statistics are presented in tables 1 and 2. Table 1 shows a distribution, by grade level, of students enrolled in public and nonpublic schools participating in Title I activities during 1972-73. Table 2 presents a percentage breakdown, by grade level, of California students who received Title I benefits from 1967-68 through 1972-73.

To implement their Title I projects in 1972-73, school districts increased their staffs by 25,994 persons from those normally provided by school district funds. The number and types of personnel whose salaries

TABLE 1

Number of Students Enrolled in ESEA, Title I, Projects in Public and Nonpublic Schools in California, by Grade Level, 1972-73

Grade Level	Number of Students Enrolled		Total	Percent of Total	
	Public Schools	Nonpublic Schools		Public Schools	Nonpublic Schools
Preschool	4,038	17	4,055	99.6	.4
Kindergarten	40,240	138	40,378	99.7	.3
One	46,438	1,271	47,709	97.3	2.7
Two	47,109	1,659	48,768	96.6	3.4
Three	46,912	1,911	48,823	96.1	3.9
Four	42,244	1,345	43,589	96.9	3.1
Five	39,906	1,127	41,033	97.3	2.7
Six	35,943	880	36,823	97.6	2.4
Seven	6,580	365	6,945	94.7	5.3
Eight	3,855	290	4,145	93.0	7.0
Nine	11,392	106	11,498	99.1	.9
Ten	5,776	19	5,795	99.7	.3
Eleven	2,488	6	2,494	99.8	.2
Twelve	1,001	1	1,002	99.9	.1
Ungraded	495	75	570	86.8	13.2
Totals	334,417	9,210	343,627	97.3	2.7

and other costs were paid for with Title I funds are shown in Table 3. Teacher aides comprised the largest category of personnel; 11,943 aides were employed on a full- or part-time basis. Over 5,000 persons volunteered their services to Title I programs.

ANALYSES OF ESEA, TITLE I, PROGRAM DATA

Results of the language development and mathematics components were analyzed through gains by grade level and by comparisons between actual and anticipated achievement. Student achievement gains were categorized as follows:

- Substantial improvement. Gains were equal to, or greater than, 1.5 years for the school year or 1.5 months per month of instruction.
- Moderate improvement. Gains were equal to, or greater than, one year for the school year or one month per month of instruction.
- Little or no improvement. Gains were less than one year during the school year or less than one month per month of instruction.
- Undetermined improvement. Reports submitted by school districts were inadequate for any determination of academic gain by students because of incomplete information, inappropriate measurement instruments, contradictory data, or general statements of success without supporting documentation.

Results of supportive components of auxiliary services, parent involvement, intergroup relations, and staff development were assessed but could not be categorized, as were the results of the instructional components, because of the differences in objectives and activities developed at the local school level.

TABLE 2

Percent of Students Receiving ESEA, Title I, Services in California, by Grade Level Groups, 1967-68 Through 1972-73

Grade Level	Percent of Total Title I Enrollment					
	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Kindergarten through Grade Three	40.4	41.8	50.4	52.1	51.9	54.0
Grades Four through Six	22.8	23.7	33.0	33.9	34.7	35.3
Grades Seven through Nine	19.9	20.7	8.9	9.1	8.2	6.6
Grades Ten through Twelve	12.4	10.9	4.0	3.6	3.3	2.7

NOTE: Figures for participants in preschool and ungraded programs are not included in this table; therefore, the percents in each column do not add up to 100.

ADVISORY COMMITTEE GROWTH

The number of persons serving on district advisory committees and parent advisory groups for the years 1969-70 through 1972-73 is presented in Table 4. Whereas the number of participants has shown steady and continuous growth, the number of parents of participating children who have become active in support of the advisory program in 1972-73 has increased almost 100 percent over the 1969-70 figure.

TABLE 3

Number of Positions Supported by ESEA, Title I, Funds in California, 1972-73

Position	Number of Positions, by Time Employed		
	Full-time	Half-time or more	Less than half-time
Teaching			
Preschool	191	47	4
Kindergarten	26	1	6
Elementary	1,191	94	91
Secondary	149	54	156
Reading Specialist	847	221	89
ESL Specialist	106	22	27
Mathematics Specialist	389	135	106
Subtotal	2,899	574	479
Nonteaching			
Instructional Teacher Aide	2,701	7,106	2,136
Community Aide	345	158	101
Librarian	43	29	32
Director	60	64	80
Supervisor/Coordinator	133	60	94
Counselor	187	38	68
Psychologist	34	48	128
Psychometrist	9	3	7
Evaluator	36	15	69
Social Worker	29	10	16
Attendance Counselor	37	7	7
Nurse	121	58	97
Dental Hygienist	0	0	1
Clerk/Secretary	615	350	156
Adult Tutors	77	141	80
Student Tutors	5	34	233
Volunteers	179	464	4,536
Other	380	191	384
Subtotal	4,991	8,776	8,274
Total	7,890	9,350	8,754

SUMMARY OF THE LANGUAGE DEVELOPMENT COMPONENT

The goal of the language development component was to improve reading and oral language skills of Title I students through reading instruction or instruction in English as a second language (ESL) for students with a limited understanding of English. A total of 323,174 students participated in reading instruction activities, and 18,509 students participated in ESL activities. Local educational agencies expended or encumbered approximately $61.7 million for reading activities and $3.4 million for ESL. Funds were used to hire additional personnel and to purchase materials to develop a more concentrated language program. Additional funding from sources in other categories amounted to expenditures of approximately $191 per student for reading instruction and $187 per student for ESL instruction. This represents a decrease from 1971-72 of approximately 13.6 percent in money expended per pupil for reading and a 22.5 percent decrease in expenditure per pupil for ESL during 1972-73.

SUMMARY OF THE MATHEMATICS COMPONENT

The 1972-73 school year was the fourth consecutive year that school districts were required to include mathematics as part of the total Title I program. The component was designed to improve participants' understanding of mathematical concepts and to increase their skills in applying the concepts. Mathematics specialists worked with instructional aides and classroom teachers in the use of manipulative materials, puzzles, and games in an attempt to broaden the students' understanding of mathematical relationships.

In 1972-73 a total of 315,712 students participated in the mathematics component at an estimated cost of $115 per participant. This expenditure per participant was 10.4 percent less than in the 1971-72 school year. Local educational agencies expended or encumbered more than $29.8 million for the mathematics component. An additional $6.5 million was expended or encumbered from other categorical aid funds.

TABLE 4
Participants in ESEA, Title I, Advisory Committees in California, 1969-70 Through 1972-73

Group	Number of Participants			
	1969-70	1970-71	1971-72	1972-73
District advisory committee members	7,445	7,701	7,716	8,042
District advisory committee members residing in eligible attendance areas	5,839	6,033	6,397	6,728
Parents serving on district advisory committees	3,912	4,315	4,976	5,269
Parent advisory groups at schools	1,372	1,486	1,572	1,584
Parents of participating children serving on advisory groups at schools	7,329	8,800	12,703	14,425

SUMMARY OF THE AUXILIARY SERVICES COMPONENT

Auxiliary services were provided to the project participants to support the instructional components; they consisted mainly of pupil personnel services, library services, and health services. During 1972-73 the auxiliary services component provided 218,000 participants with pupil personnel services; 247,000, with library services; and 257,000, with health services. The total amount of Title I funds spent for auxiliary services was $10.3 million.

The most important of the pupil personnel services provided were individual counseling, psychological testing, parent counseling, teacher consultation, and group counseling. Library services emphasized facilities and materials to start new programs or to augment existing libraries. The most important health aids included nutritional, medical, and dental services and nursing.

SUMMARY OF THE PARENT INVOLVEMENT COMPONENT

Parent involvement activities were planned and administered by school districts to improve communications between the school and the community. Districts reported that 225,000 parents and school personnel participated jointly in parent involvement activities. The amount of Title I funds expended in support of this component was approximately $3.8 million, an increase of 9 percent over 1971-72.

The most important of the parent involvement activities were parent advisory committee meetings, parent conferences, workshops and classes, use of parents as volunteers and aides, and school meetings.

SUMMARY OF THE INTERGROUP RELATIONS COMPONENT

The intergroup relations component was developed to reduce isolation between different social, racial, cultural, or ethnic groups. More than 380,000 persons participated in intergroup relations activities in 1972-73. School districts spent over $3.8 million in Title I funds for intergroup relations, an increase of 50 percent over the previous school year.

The most important intergroup relations activities included cultural programs, school activities, use of multiethnic materials, ethnic studies, and student exchanges.

SUMMARY OF THE STAFF DEVELOPMENT COMPONENT

Staff development activities were required in all compensatory education programs; their primary purpose was to provide staff inservice training leading to improvement in the education of Title I students. Of the 34,000 persons participating in staff development activities, 71 percent of the participants were classroom teachers and aides. School districts spent just over $3.6 million in Title I funds for staff development during 1972-73, as compared to $3.8 million for 1971-72.

The most important staff development activities were training in reading instruction and language development, use of new materials and equipment, diagnostic-prescriptive teaching techniques, and mathematics instruction.

Language Development Component

The language development component was one of the required instructional components funded under ESEA, Title I, in 1972-73. It was directed toward the improvement of reading skills for academically low-achieving, English-speaking children, and the component provided for instruction in English as a second language for children with a limited facility in or no prior exposure to the English language.

LANGUAGE DEVELOPMENT THROUGH READING INSTRUCTION

The language development component afforded districts the opportunity to augment student instruction in reading skills through a variety of methods and materials provided by Title I resources.

Participation in Reading Instruction

A total of 323,174 public school students participated in reading instruction activities. Of the total number, 295,188 students, or 91 percent, were in kindergarten and grades one through six; and 27,986 students, or 9 percent, were in grades seven through twelve (see Table 5).

Reading instruction received major emphasis in the language development component during 1972-73, with students in all 1,695 target schools participating in reading activities. Of all Title I funds encumbered in California for the period noted, 48 percent was committed to activities relating to reading instruction. ESEA, Title I, funds combined with state and local monies resulted in an average expenditure of $191 per pupil for reading instruction (see Table 6).

Objectives and Activities in Reading Instruction

More than 81 percent of all project evaluations contained statements of determinable objectives regarding growth in reading skills of Title I students. Objectives were most frequently stated in terms of the number or percent of students moving upward toward the national average for their age-grade level, or the objectives were presented in terms of months of growth per month of instruction as measured by standardized tests.

Individualized and group-type instructional approaches for the teaching of reading were widely reported. Both of these organizational techniques included use of diagnostic-prescriptive methods; personal contacts with reading specialists, teachers, aides, and tutors; and available commercial and locally developed programmed materials.

Diagnostic-prescriptive methods were used by teachers to achieve precision in educational planning for Title I students. Teachers diagnosed low-achieving pupils by using a variety of norm- and criterion-referenced measures designed to sample fundamental reading skills. Such test information provided classroom teachers and reading specialists with objective bases for generating instructional procedures and materials required to meet student needs and to assess student gains over specified time periods.

Personal contact with reading specialists was provided by individualized and small-group experiences for students who had special instructional needs. Contacts were augmented by the use of instructional aides and tutorial programs. Roles and responsibilities of aides varied from one school to another, but their primary purpose was to provide instructional support. Tutors included older children serving younger children (cross-age tutoring), high school and college students, parents, and other interested members of the community.

Available commercial and locally developed programed materials augmented regular classroom instruction. These materials frequently were accompanied by criterion-referenced performance tests of student progress that could be administered and evaluated by teachers and aides in the classrooms.

Project personnel experimented with a variety of motivational techniques. These included use of audiovisual equipment and materials, group counseling, field trips, library activities, selective reading programs, group activities, and word games. However, reading continued to receive primary attention, with particular emphasis on fundamental skills.

Evaluation of Reading Instruction

Analysis of student progress was obtained through pretest and post-test comparisons of standardized achievement test results. School districts relied heavily upon the state mandated testing program in grades one, two, three, and six, with complementary measures in kindergarten, grades four and five, and in high school grades.

TABLE 5
Number of Public School Student Participants in ESEA, Title I, Reading Instruction Activities in California, by Grade Level, 1972-73

Grade Level	Number of Students Enrolled	Percent of Students
Kindergarten	40,451	12.5
One	46,476	14.3
Two	47,006	14.5
Three	45,949	14.2
Four	41,077	12.7
Five	39,062	12.0
Six	35,167	11.1
Seven	6,203	2.1
Eight	3,260	1.0
Nine	10,493	3.2
Ten	5,222	1.6
Eleven	1,970	0.6
Twelve	838	0.2
Total	323,174	100.0

Using standardized measures on a pretest and post-test schedule, project personnel computed average months of gain in reading skill per month of instruction for students in grades one through twelve in public schools and in grades one through eight in nonpublic schools. Analyses were also made for public school students at each grade level, as to the percent scoring in each quarter of the distribution of reading scores, according to national norms on pretest measures and on the post-test.

Test information reported by districts which was either incomplete or contained procedural irregularities was not aggregated with statewide results. Incomplete data or irregular procedures included instances in which (1) either pretest or post-test information was omitted; (2) test results were not given in grade equivalents; (3) test results were combined for several grade levels; (4) the standardized measure used in the pretest differed from the measure used in the post-test; (5) nonstandardized tests were used; or (6) no test results were reported.

Results of Reading Instruction

The test results revealed that Title I students at all grade levels averaged more than one month's growth in reading skills for each month of instruction. These gains represent average grade-level increases of from one to six months beyond predicted gains based on average pretest scores. With seven months between pretesting and post-testing, gains for public and nonpublic school students were similar. The findings for public and nonpublic schools by grade level are presented in tables 7 and 8, respectively.

An analysis of the test results showed that 59 percent of the public school students and 52 percent of the nonpublic school students achieved moderate growth (0.7 to 1.4 years) to substantial growth (1.5 years or more) in reading during the seven months between pretests and post-tests. These gains represent growth of students whose previous average rate of growth ranged from 0.4 to 0.6 years during a comparable period. Data are presented in tables 9 and 10.

TABLE 6

Expenditures for Activities in Reading Instruction in ESEA, Title I Projects in California, by Funding Source, 1972-73

Funding Source	Expenditure	Percent of Total
Federal		
ESEA, Title I	$ 45,325,816	73.4
State		
Miller-Unruh Basic Reading Act	5,001,785	8.1
Special Teacher Employment Program	2,784,899	4.5
Local		
District Supplementary Funds	6,472,730	10.5
Other	2,132,385	3.5
Total	$ 61,717,615	100.0
Expenditure Per Student	$191	

Further analyses of the gains of public school students were conducted to determine the movement of Title I students out of the lower ranges of reading achievement and toward greater competency. Findings summarized in Table 11 indicate that an average of 11 percent of the participants at all grade levels moved out of the lowest quarter of the distribution between pretesting and post-testing, even though approximately 85 percent of all Title I students were reading below grade level at the start of the school year. Improvement was most apparent in the lower primary and upper elementary grades but still evident in grades seven through twelve.

A summary of reading achievement gains during the school years 1967-68 through 1972-73 is presented in Table 12. This table shows that the percent of students tested who showed moderate or substantial improvement during 1972-73 was less than in previous years. One important interpretation of these data is that, even though the number of students who showed at least moderate gains decreased, the amount of gains shown by these students increased with very satisfactory results, as indicated by tables 7 through 11.

LANGUAGE DEVELOPMENT THROUGH INSTRUCTION IN ENGLISH AS A SECOND LANGUAGE

Instruction in English as a second language (ESL) was designed to assist children from a variety of cultural backgrounds to develop functional communication skills in English in a relatively short period of time. Among the languages primarily spoken by children in the various school districts were Chinese, French, German, Greek, Gujarati (India), Italian, Japanese, Portuguese, Spanish, Tagalog (Philippine Republic), Urdu (India), and Slovene and/or Croatian (Yugoslavia).

TABLE 7

Average Reading Achievement by Public School Students Participating in ESEA, Title I, Projects in California, by Grade Level, 1972-73

Grade Level	Number of Students tested	Average grade equivalent scores		Average months of gain between pre-test and post-test
		Pretest	Post-test	
One	10,345	1.0	1.7	7
Two	38,122	1.5	2.3	8
Three	38,206	2.1	2.9	8
Four	29,232	2.8	3.6	8
Five	29,343	3.5	4.2	7
Six	27,166	4.1	4.9	8
Seven	4,930	4.5	5.3	8
Eight	2,609	5.0	5.9	9
Nine	7,384	5.7	6.8	11
Ten	3,280	6.2	7.1	9
Eleven	1,158	6.4	7.4	10
Twelve	492	7.0	7.9	9

TABLE 8

Average Reading Achievement by Nonpublic School Students Participating in ESEA, Title I, Projects in California, by Grade Level, 1972-73

Grade Level	Number of students tested	Average grade equivalent scores		Average months of gain between pre- and post-testing
		Pretest	Post-test	
One	231	1.0	1.7	7
Two	1,205	1.6	2.4	8
Three	1,398	2.4	3.1	7
Four	1,158	3.0	3.8	8
Five	839	3.8	4.7	9
Six	649	4.6	5.4	8
Seven	182	5.3	5.9	6
Eight	175	6.1	7.1	10

TABLE 9

Reading Achievement Gains by Public School Students Participating in ESEA, Title I, Projects in California, by Grade Level, 1972-73

Grade Level	Number of Students Tested	Percent of Students Tested			
		Substantial Gain (1.5+Years)	Moderate Gain		Little or No Gain (0.6 Year or Less)
			1.0-1.4 years	0.7-0.9 years	
One	12,054	2.8	9.2	29.4	58.6
Two	38,310	3.6	24.4	31.7	40.3
Three	38,489	6.4	21.6	35.3	36.7
Four	29,492	6.7	21.5	28.3	43.5
Five	29,630	4.4	19.5	29.9	47.2
Six	27,397	5.4	18.2	37.5	38.9
Seven	5,014	4.5	14.8	15.5	65.2
Eight	2,643	8.1	24.8	45.4	21.7
Nine	7,495	29.1	19.1	23.6	28.2
Ten	3,373	10.0	36.5	36.5	17.0
Eleven	1,205	27.6	24.1	21.7	26.6
Twelve	524	15.8	52.7	3.6	27.9
Total or Average	195,626	6.3	20.7	31.6	41.4
			52.3		

TABLE 10

Reading Achievement Gains by Nonpublic School Students Participating in ESEA, Title I, Projects in California, by Grade Level, 1972-73

Grade Level	Number of Students	Percent of Students Tested			
		Substantial	Moderate		Little or None
		1.5+	1.0 to 1.4	0.7 to 0.9	0.6 or Less
One	276	2.2	18.1	14.9	64.8
Two	1,212	4.5	39.3	9.3	46.9
Three	1,406	4.3	17.1	10.3	68.3
Four	1,169	10.1	9.1	33.3	47.5
Five	858	10.9	15.0	53.7	20.4
Six	661	16.7	21.6	20.7	41.0
Seven	182	0.6	5.5	26.9	67.0
Eight	175	7.4	18.3	45.7	28.6
Total or Average	5,939	7.7	20.0	23.8	48.5
			43.8		

TABLE 11

Percent of Public School Students Scoring in Each Quarter of the Distribution of Reading Achievement Scores at Pretesting and Post-testing, 1972-73

Grade Level	Number of Students Tested	Test	Percent of Students by Quarter			
			1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Kindergarten, One, Two and Three	117,788	Pre	51.0	28.9	13.6	6.5
	113,333	Post	39.7	30.3	18.3	11.7
Four, Five and Six	101,802	Pre	63.7	25.7	7.8	2.8
	98,554	Post	54.2	29.3	11.4	5.1
Seven, Eight and Nine	15,456	Pre	78.8	15.7	4.4	1.1
	14,369	Post	66.3	23.8	7.5	2.4
Ten, Eleven and Twelve	5,199	Pre	80.4	13.5	4.4	1.7
	4,623	Post	73.0	17.9	6.7	2.4

Participation in ESL Instruction

ESL activities sponsored by ESEA, Title I, were operational in 402 target schools and served 18,509 students in kindergarten and grades one through twelve. A total of 16,708, or 90 percent, of the children were enrolled in kindergarten and grades one through six, and 1,801, or 10 percent, were enrolled in grades seven through twelve.

Title I expenditures for ESL activities totaled $2.9 million, or approximately 3 percent of the state Title I budget for 1972-73. When combined with additional state and local funds, compensatory education expenditures for ESL activities averaged $187 per student (see Table 13).

Objectives and Activities of ESL Instruction

A review of projects containing ESL elements within the language development component disclosed that projects frequently did not contain statements of measurable objectives. Consequently, neither the impact of the activities nor the relative benefit of such teaching programs could be determined. However, when reasonable and measurable objectives were indicated, school district personnel were provided with both a means for assessing student progress and a basis for further program decisions.

Teaching methods included individual and group-type instruction involving ESL specialists, instructional aides, and tutorial assistants directly in the learning process. Teaching materials included both locally developed and available commercial products, with major emphasis upon linguistic and audiolingual approaches.

Evaluation and Results of ESL Instruction

Student progress was determined by school districts through criterion-referenced measures, checklists, and anecdotal records.

The success of ESL instruction was directly related to the precision of program developers in stating project goals and objectives. Analysis of instructional approaches indicated that projects with clearly defined goals and objectives tended to structure ESL programs around locally developed instructional materials, commercially available materials, or both types of materials. Regardless of the techniques or methods used, the critical factor was that the criteria used to assess student achievement were relevant to the classroom instruction provided.

TABLE 12

Reading Achievement Gains by Public School Students Participating in ESEA, Title I, Projects in California, 1967-68 Through 1972-73

Level of Achievement	Percent of Students Tested					
	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Substantial Improvement	9.6	14.1	8.6	6.1	7.2	5.5
Moderate Improvement	35.8	50.1	52.4	47.8	49.8	45.7
Little or No Improvement	42.8	26.5	30.1	34.4	31.9	36.2
Incomplete Data	11.8	9.3	8.9	11.7	11.1	12.6

Analyses of test results indicated that the majority of public and nonpublic school students in Title I projects achieved or surpassed one month's growth for each month of participation in the Title I reading program. Students in the primary grades demonstrated greater movement toward national averages than did students in the junior and senior high school grades.

In the absence of appropriate standardized tests for measuring the impact of ESL activities, school districts relied upon locally developed, criterion related measures to determine student gains in language skills.

TABLE 13

Expenditures for Activities in Instruction in English as a Second Language (ESL) in ESEA, Title I, Projects in California by Funding Source, 1972-73

Funding Source	Expenditure	Percent of Total
Federal		
ESEA, Title I	$ 2,921,668	84.4
State		
Miller-Unruh Basic Reading Act	61,162	1.8
Special Teacher Employment Program	27,733	0.8
Local		
District Supplementary Funds	170,746	4.9
Other	281,142	8.1
Total	$ 3,462,451	100.0
Expenditure per student	$187	

Mathematics Component

Mathematics was a required instructional component in 1972-73. The purpose of the component was to develop the mathematics skills of low-achieving ESEA, Title I, students, using services of professional staff members with expertise in diagnostic and prescriptive instructional methods.

PARTICIPATION IN THE MATHEMATICS COMPONENT

A total of 315,712 public school students participated in mathematics instruction activities. Of those participants, 288,803, or 91 percent, were in kindergarten and grades one through six, and 26,900, or 9 percent, were in grades seven through twelve (see Table 14).

Title I mathematics instructional programs were reported in 1,736 target public schools and in 285 participating nonpublic schools. During 1972-73 more than 29 percent of all ESEA, Title I, funds in California were expended in support of mathematics programs. The funds were used to provide personnel and material support for more concentrated mathematics instruction than could normally be provided by the school districts. When the Title I funds were combined with state and local monies, they provided for an average per-pupil expenditure of $115 for mathematics instruction (see Table 15).

OBJECTIVES AND ACTIVITIES OF THE MATHEMATICS COMPONENT

More than 94 percent of all ESEA, Title I, projects reported specific goals and objectives for student achievement in mathematics. Objectives were most often stated in terms of students' upward academic movement--either in numbers of students or in percent of the group--toward the national average for their age-grade level, or in terms of months of growth per month of instruction as determined by standardized achievement tests.

Title I mathematics instructional activities included group and individualized instructional techniques which emphasized creative staffing patterns, diagnostic and prescriptive procedures, and a variety of educational materials.

Districts frequently augmented available local resources by employing professional and paraprofessional personnel to serve specific needs of Title I students. Professional personnel included special consultants from business and industry, mathematics consultants from offices of district and county superintendents of schools, and teachers from cooperative grade-level team-teaching efforts at individual school sites. Paraprofessional assistance was rendered by instructional aides who worked with students under the direct supervision of classroom teachers. In addition to the use of instructional aides, some districts had cross-age tutorial programs and volunteer programs that included parents and other members of the community.

Diagnostic procedures were employed in planning remedial programs for students. Information was generally obtained through group-type standardized or criterion referenced tests, and details were recorded on diagnostic profiles for each student. Instructional materials and activities were then prescribed for each student, and the activities were implemented by professional and paraprofessional staff members.

Educational materials used most frequently by districts were commercially developed and locally constructed motivational and content-oriented packages, usually with criterion referenced performance tests. These materials included instructional games, learning activity packages, programmed materials, and computer-assisted instruction.

EVALUATION OF THE MATHEMATICS COMPONENT

Student gains in mathematics were determined by pretest and post-test comparisons of standardized test results. Project personnel reported average months of gain in mathematics skill per month of instruction for public school students in grades one through twelve and for pupils in grades one through eight in nonpublic schools. Analyses were also conducted for public school students at each grade level regarding the percent of students moving out of the lower and into the higher quarters of the distribution of mathematics achievement scores according to national norms.

Test information reported by districts that was either incomplete or contained procedural irregularities was not aggregated with statewide results. Incomplete data or irregular procedures included omission of pre-test or post-test information; test results not given in grade equivalents; test results combined among several grade levels; use of different standardized measures for the pretest and the post-test; use of nonstandardized tests in reporting student progress; or no test results reported.

TABLE 14

Number of Public School Student Participants in ESEA, Title I, Mathematics Instruction Activities in California, by Grade Level, 1972-73

Grade Level	Number of Students Enrolled	Percent of Students
Kindergarten	39,126	12.4
One	45,511	14.4
Two	46,267	14.7
Three	44,865	14.2
Four	40,240	12.7
Five	38,360	12.2
Six	34,434	11.1
Seven	5,975	1.8
Eight	3,614	1.1
Nine	10,112	3.2
Ten	4,950	1.5
Eleven	1,583	0.5
Twelve	675	0.2
Total	315,712	100.0

RESULTS OF MATHEMATICS INSTRUCTION

Results revealed that Title I students at all grade levels averaged one month's growth or more in mathematics skills for each month of instruction. These gains represent average increases by grade level of from one to seven months above gains predicted from average pretest scores. With seven months between pretesting and post-testing, the achievement of students in public and nonpublic schools was similar. Findings for public and nonpublic schools by grade level are shown in tables 16 and 17, respectively.

Analysis showed that 72 percent of the public school students and 65 percent of the nonpubiic school students achieved moderate growth (0.7 to 1.4 years) to substantial growth (1.5 years or more) in mathematics during the seven months between pretests and post-tests. These gains represent growth of students whose average previous rate of growth ranged from 0.4 to 0.6 years during a comparable period. Data are presented in tables 18 and 19.

Further analysis of the gains of public school students was conducted to determine the movement away from the lower ranges of mathematics achievement and toward higher performance levels. Findings summarized in Table 20 indicate that an average of 17 percent of the students at all grade levels moved out of the lowest quarter of the distribution between pretesting and post-testing, even though approximately 86 percent of all Title I students were achieving below grade level at the start of the school year. Improvement was most prevalent in the primary and elementary grades, but still apparent in grades seven through twelve.

A summary of mathematics achievement gains during the school years 1969-70 through 1972-73 is presented in Table 21. This table shows that the percent of students tested who showed moderate or substantial improvement during 1972-73 was less than the previous year. One important interpretation of these data is that even though the number of students who showed at least moderate gains decreased, the amount of gains per student increased, with very satisfactory results, as indicated in tables 16 through 20.

TABLE 15

Expenditures for Activities in Mathematics Instruction in ESEA, Title I, Projects in California, by Funding Source, 1972-73

Funding Source	Expenditure	Percent of Total
Federal		
ESEA, Title I	$ 29,875,698	82.1
State		
Special Teacher Employment Program	2,253,296	6.2
Local		
District Supplementary Funds	2,478,281	6.8
Other	1,775,242	4.9
Total	$ 36,382,517	100.0
Expenditure per student	$ 115	

TABLE 16

Average Mathematics Achievement by Public School Students Participating in ESEA, Title I, Projects in California, by Grade Level, 1972-73

Grade Level	Number of Students Tested	Average grade equivalent scores		Average months of gain between pre- and post-testing
		Pretest	Post-test	
One	10,633	1.0	1.7	7
Two	23,166	1.6	2.5	9
Three	32,699	2.2	3.2	10
Four	28,738	3.0	3.9	9
Five	28,168	3.7	4.6	9
Six	26,268	4.5	5.2	7
Seven	3,849	4.8	5.8	10
Eight	2,319	5.2	6.2	10
Nine	6,150	5.9	6.9	10
Ten	2,232	6.6	7.4	8
Eleven	899	6.5	7.7	12
Twelve	393	7.1	8.0	9

TABLE 17

Average Mathematics Achievement by Nonpublic School Students Participating in ESEA, Title I, Projects in California, by Grade Level, 1972-73

Grade Level	Number of students tested	Average grade equivalent scores		Average months of gain between pre- and post-testing
		Pretest	Post-test	
One	222	1.0	1.7	7
Two	978	1.7	2.4	7
Three	1,209	2.4	3.4	10
Four	1,069	3.1	4.2	11
Five	796	3.9	4.9	10
Six	601	4.8	5.7	9
Seven	105	5.5	6.5	10
Eight	86	6.4	7.4	10

TABLE 18

Mathematics Achievement Gains by Public School Students Participating in ESEA, Title I, Projects in California, by Grade Level, 1972-73

Grade Level	Number of Students	Percent of Students Tested			
		Substantial 1.5+	Moderate		Little or None 0.6 or Less
			1.0 to 1.4	0.7 to 0.9	
One	12,854	8.1	16.8	26.9	48.2
Two	23,514	9.6	30.2	39.5	20.7
Three	32,987	12.8	42.7	30.9	13.6
Four	28,991	7.8	34.3	37.8	20.1
Five	28,509	5.4	28.2	40.2	26.2
Six	26,517	3.4	23.9	29.7	43.0
Seven	3,886	15.6	10.9	21.9	51.6
Eight	2,352	10.0	22.6	7.4	60.0
Nine	6,339	21.3	17.4	29.1	32.2
Ten	2,331	17.8	9.7	16.5	56.0
Eleven	922	19.2	26.0	15.0	39.8
Twelve	415	12.3	19.3	21.4	47.0
Total or Average	169,617	8.9	29.6	33.4	28.1
			63.0		

SUMMARY OF THE MATHEMATICS COMPONENT

Program information revealed that 94 percent of the projects included statements of specific objectives for student achievement in mathematics. More than 71 percent of the public school students and almost 65 percent of the nonpublic school students in those projects achieved gains equal to or greater than one month's growth in mathematics for each month's participation in the Title I program. These statistics were developed from results of standardized tests.

There was an average movement of 17 percent of the participants out of the lowest quarter of the distribution at all grade levels. Findings also revealed that, as a group, Title I pupils in the primary and elementary grades evidenced greater movement toward higher performance than did students at the high school level.

TABLE 19

Mathematics Achievement Gains by Nonpublic School Students Participating in ESEA, Title I, Projects in California, by Grade Level, 1972-73

Grade Level	Number of Students	Percent of Students Tested			
		Substantial 1.5+	Moderate		Little or None 0.6 or Less
			1.0 to 1.4	0.7 to 0.9	
One	263	1.9	22.1	7.6	68.4
Two	1,027	3.0	10.5	45.8	40.7
Three	1,291	10.4	41.4	29.2	19.0
Four	1,152	36.0	14.6	21.5	27.9
Five	871	14.6	30.9	24.2	30.3
Six	675	19.6	20.0	3.4	57.0
Seven	137	34.3	.0	3.7	62.0
Eight	133	3.8	65.4	0.7	30.1
Total or Average	5,549	16.2	24.5	24.4	34.9
			48.9		

TABLE 20

Percent of Public School Students Scoring in Each Quarter of the Distribution of Achievement Scores in Mathematics at Pretesting and Post-testing, 1972-73

Grade Level	Number of Students tested	Test	Percent of Students by Quarter			
			1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Kindergarten, One, Two and Three	100,396	Pre	56.7	25.1	12.4	5.8
	96,770	Post	35.4	30.5	18.7	15.4
Four, Five and Six	98,074	Pre	68.4	21.0	7.6	3.0
	95,627	Post	54.6	26.5	12.6	6.3
Seven, Eight and Nine	15,532	Pre	78.0	17.4	3.8	0.8
	14,533	Post	66.6	23.9	6.9	2.6
Ten, Eleven and Twelve	4,488	Pre	83.6	12.0	3.8	0.6
	3,986	Post	73.6	18.9	5.9	1.6

TABLE 21

Mathematics Achievement Gains by Public School Students Participating in ESEA, Title I, Projects in California, 1969-70 Through 1972-73

Level of Achievement	Percent of Student Gains			
	1969-70	1970-71	1971-72	1972-73
Substantial improvement	5.0	7.2	9.5	8.1
Moderate improvement	61.5	58.0	59.9	57.4
Little or no improvement	24.6	29.8	24.3	25.6
Incomplete data	8.9	5.0	6.3	8.9

Auxiliary Services Component

Auxiliary services are those supportive activities and services not provided elsewhere in the program but necessary to the success of project participants. They include pupil personnel services, library services, and health services. Compensatory education programs are required to provide auxiliary services to support the basic instructional components. These services are made available to student participants in relation to their individual diagnosed needs.

Auxiliary services are considered successful when the participants benefit from appropriate multiple services and activities that compensate for the conditions that may have caused them to be identified as educationally disadvantaged.

PARTICIPATION IN THE AUXILIARY SERVICES COMPONENT

Reports showed that pupil personnel services were provided in 500 projects to 218,167 participants during the 1972-73 school year. Table 22 lists the number of Title I students who received pupil personnel services, as well as the Title I expenditure per student for each service provided. Library services were provided in 475 projects to more than 247,800 students. Table 23 lists the number of students who received library services and the expenditure per student. Various health services were provided from Title I funds to 257,257 participants in 516 projects. Table 24 lists the number of students receiving health services and the per-student expenditure for each service provided.

OBJECTIVES AND ACTIVITIES OF THE AUXILIARY SERVICES COMPONENT

The major auxiliary services objectives reported by 479 projects were related to improvement in pupil performance, provision of specific services, and correction of health and behavior problems. Approximately three-fourths of the projects reported measurable performance objectives; one-fourth indicated relatively vague component goals or aims. Of the 850 measurable objectives listed, about 44 percent referred to input (services provided), whereas 56 percent were based on output (changes in pupil behavior or achievement).

Specific objectives reported most frequently included such end results as providing health and pupil personnel services, improving student achievement, and increasing school attendance. Other major objectives focused on the improvement of pupil health, attitude, and self-image. The least frequently reported objectives (reported by less than 1 percent of the projects) were the supplying of articles of clothing, a decrease in speech problems, and an increase in library or health knowledge.

Specific activities were emphasized in each of the auxiliary services provided. Pupil personnel services included--in order of importance--individual counseling, psychological testing, parent counseling, teacher consultation, group counseling, home counseling, speech therapy, welfare and attendance services, guidance inservice training, and psychometric assistance. Most important health services offered were nursing, nutritional aid, medical, dental, and diagnostic services, as well as family assistance and health education. Library services included library facilities, materials, personnel, and mobile units.

A direct relationship was seen between the frequency of activities listed in objectives and their importance as rated by project personnel. However, major discrepancies were noted in two areas--school attendance

and referral services. Activities related to these services occurred frequently in objectives, yet rated low in emphasis.

EVALUATION OF THE AUXILIARY SERVICES COMPONENT

Auxiliary services were usually evaluated by identifying the criteria of a successful program and assessing the level of effectiveness of specific services provided in meeting those criteria. Of the Title I projects reporting auxiliary services, 75 percent of the evaluations stated criteria in terms of amount or number of services provided. Only 25 percent reported criteria in terms of expected changes in pupil or staff behavior.

The level of effectiveness was determined primarily by three methods--subjective judgments, enumeration of, or counting, participants or activities, and objective measurements. Each project reported the main method used to evaluate the effectiveness of each major activity or service provided.

Analysis of 373 evaluation reports showed that 46 percent of the auxiliary services evaluations were determined by subjective judgments; 39 percent, by enumeration data; and 15 percent, by objective measurement. These figures indicate a decrease from the previous year in the use of subjective judgment and an increase in enumeration or counting.

TABLE 22

Expenditure Per Student for Pupil Personnel Services in ESEA, Title I Projects in California, 1972-73

Pupil personnel service	Number of projects	Number of students	Expenditure per Student
Individual counseling	380	113,160	$34
Welfare and attendance	236	81,060	4
Parent counseling	341	64,488	5
Home counseling	253	44,873	4
Teacher consulation	299	43,958	5
Psychological testing	352	38,953	12
Group counseling	264	33,490	16
Psychometric assistance	176	27,481	5
Guidance inservice	200	14,467	4
Speech therapy	239	6,906	10
Total	2,740	468,836	$13 *
Unduplicated total	500	218,167	$28 *

*Weighted Expenditure per Student

TABLE 23

Expenditure Per Student for Library Services in ESEA, Title I Projects in California, 1972-73

Library service	Number of Projects	Number of students	Expenditure per student
Library materials	260	172,444	$ 1
Library facilities	290	172,222	3
Library services	239	165,909	1
Library personnel	239	145,441	4
Mobile library	43	4,011	1
Total	1,071	660,027	$ 2 *
Unduplicated total	475	247,809	$ 5 *

*Weighted Expenditure per Student

TABLE 24

Expenditure Per Student for Health Services in ESEA, Title I Projects in California, 1972-73

Health service	Number of Projects	Number of students	Expenditure per student
Nursing	371	191,340	$12
Nutritional	238	144,637	1
Health education	207	128,813	1
Diagnostic	220	109,103	1
Medical	224	48,340	1
Dental	220	40,593	1
Family services	182	20,830	3
Total	1,662	683,656	$ 4 *
Unduplicated total	516	257,257	$10 *

*Weighted Expenditure per Student

Of the 2,400 subjective judgments reported, 28 percent were based on staff evaluations; 24 percent, on records and reports; and 18 percent, on teacher opinions. About 8 percent of the evaluations included comments from parents. Less than 1 percent of the projects included advisory committee responses in evaluations. Subjective judgments were used most extensively in the evaluation of pupil personnel services, especially parent counseling, teacher consultations, and individual counseling. Staff evaluations were the most common methods used to evaluate library personnel; records and reports, to evaluate school nurses.

Enumeration consisted primarily of counting the number of students served. Of the reports submitted that included enumeration data, 30 per-

cent were tabulations of the number of participants or referrals. About 12 percent related to the number of problems solved. A few projects reported on the number of duties performed, lunches served, or pupils placed in special classes. Enumeration data were used most frequently to evaluate health services, particularly nutritional, medical, and dental services. The most common method of evaluating nutritional services was by compiling the number of lunches served; for medical and dental services, the number of examination given.

The objective measurements reported most frequently were tests of pupil performance, locally constructed questionnaires, and rating scales. Relatively few projects used student ratings or attitude scales. Objective measurements were used most often in the evaluation of pupil personnel services. Improved attendance was used to measure the effect of welfare and attendance services; pupil performance, to evaluate speech therapy services.

About 65 percent of the projects reported pupil performance was used to evaluate the effectiveness of various auxiliary services; 42 percent listed improved pupil achievement as a major component objective.

RESULTS OF THE AUXILIARY SERVICES COMPONENT

Of the projects reporting measurable objectives, 24 percent attained their objectives, 26 percent achieved part of their objectives, 18 percent did not attain their objectives, and 32 percent reported results unrelated to their objectives.

Reports of 380 projects rated the level of effectiveness of specific auxiliary services in terms of meeting their project objectives. Pupil personnel services ratings were 84 percent "effective" or "very effective." The most effective pupil personnel services were speech therapy, teacher consultations, psychometric assistance, and individual counseling; the least effective were welfare and attendance, group counseling, and guidance in-service.

Reports from 290 projects included ratings of library services. Most library services were rated as "effective." The most effective library services provided were materials and personnel; the least effective service was the provision of mobile libraries.

Evaluation reports of 371 projects rated the effectiveness of specific health services. The majority of health services were rated as "very effective." The most effective were nursing, diagnostic, and nutritional services. In general, the least effective health services were health education and family services.

A comparison was made between the importance and effectiveness of major auxiliary services provided, as rated by project personnel. Results are shown graphically in figures 1, 2, and 3. The greatest discrepancies were in four pupil personnel services. Psychometric assistance and speech therapy ranked low in importance but high in effectiveness; group counseling and parent counseling ranked high in importance but low in effectiveness. In pupil personnel and library services, correlation between the rank order of the major auxiliary services on importance and on effectiveness was insignificant. There was a significant correlation of 0.857 between the importance and effectiveness of major health services provided, as rated by project reports.

Positive results reported in relation to stated objectives are summarized in Table 25, based on data submitted by 360 projects with measurable performance objectives. From the resulting improvement in student achievement, increase in school attendance, improved pupil attitude and self-image, improved pupil health, and fewer disciplinary referrals, it was evident that

auxiliary services were effective. Very few projects reported fewer absences due to illness, increased parent cooperation, or more health knowledge as a result of auxiliary services provided.

In general, the most cost-effective auxiliary services--those that were rated as most effective at the least cost per participant--were psychometric assistance, library materials, and diagnostic health services. Least cost-effective were group counseling, mobile libraries, and family health services.

Compared to the previous year, these results reflect less emphasis on providing services and more emphasis on improving student academic achievement and changing pupil behavior and attitude.

SUMMARY OF THE AUXILIARY SERVICES COMPONENT

Auxiliary services consisted of those supportive pupil personnel, library, and health services necessary to the success of the project participants.

More than 218,000 students benefited from pupil personnel services provided in 500 target schools at an average cost of $29 per student. Nearly 500 projects provided library services for 247,000 students at an average

TABLE 25

Positive Results of Activities in Auxiliary Services Most Frequently Reported in Relation to Stated Objectives in 360 ESEA Title I, Projects in California, 1972-73

Rank Order	Specific Results Reported	Projects Reporting	
		Number	Percent
1	Pupil personnel services provided	93	25.8
2	Health examinations given	73	20.3
3	Improved student achievement	67	18.6
4	Health services provided	56	15.6
5	Referral services offered	51	14.2
6	Increase in school attendance	33	9.2
7	Improved pupil attitude/self-image	24	6.7
8	Improved pupil health	21	5.8
9	Fewer disciplinary referrals	20	5.6
10	Nutrition aid and lunches provided	19	5.3
11	Greater use of libraries	18	5.0
12	More home contacts	17	4.7
13	Health information provided	15	4.2
14	Improved pupil behavior	14	3.9
15	Library services provided	12	3.3
16	Better student adjustment to school	11	3.1
17	Fewer learning disabilities	8	2.2
18	Increase in vocational knowledge	6	1.7
19	Increase in library skills	5	1.4
21	Increase in health knowledge	4	1.1
21	Clothing articles provided	4	1.1
21	Better parent cooperation	4	1.1
23	Less absence due to illness	2	0.6

cost of $5 per student. In addition, 516 projects offered health services to 257,000 participants at an average cost of $10 per student.

Specific performance objectives were related to improved pupil performance, provision of needed services, and correction of health and behavior problems. Major objectives included improved student achievement and school attendance.

Reports indicated that about one-half of the projects achieved all or part of their stated objectives and that about one-sixth of the projects did not; one-third of the projects reported results unrelated to their objectives.

The most effective pupil personnel services were speech therapy, teacher consultation, and psychometric assistance. Library materials and personnel were the most effective library services. The most effective health services were nursing, diagnostic, and nutritional services.

The most frequent results of auxiliary services included higher student achievement, better school attendance, improved pupil attitude and self-image, better pupil health, and fewer disciplinary problems.

The auxiliary services considered the most important were not necessarily those activities that produced the most positive results, except for health services.

	5 Most Important	5 Least Important
5 Most Effective	Teacher consultation Individual counseling Psychological testing	Speech therapy Psychometric assistance
5 Least Effective	Parent counseling Group counseling	Home counseling Guidance inservice Welfare and attendance

Fig. 1. Relative importance and effectiveness of ten major pupil personnel services provided by 380 projects in California, 1972-73

	3 Most Important	2 Least Important
3 Most Effective	Library materials Library personnel Library facilities	
2 Least Effective		Library services Mobile libraries

Fig. 2. Relative importance and effectiveness of five major library services provided by 290 projects in California, 1972-73

	4 Most Important	3 Least Important
4 Most Effective	Nursing Diagnostic Nutrition Medical	
3 Least Effective		Dental Family services Health education

Fig. 3. Relative importance and effectiveness of seven major health services provided by 371 projects in California, 1972-73

Parent Involvement Component

State guidelines for ESEA, Title I, require parent involvement to be a part of every compensatory education program. Specific plans must be included for improving communication between the school and the poverty area community, for activities to make parents more aware of the school's instructional program and their children's progress, and for assisting parents in helping their children in the learning process. Under the Title I program, parents are directly involved in the project advisory committee's functions and responsibilities.

PARTICIPATION IN THE PARENT INVOLVEMENT COMPONENT

Districts reported that 188,329 parents and 37,331 school personnel participated in parent involvement activities in 1972-73, 8 percent more parents than in the previous school year. Title I funds in the amount of $3,844,404 were spent for parent involvement activities, 8.6 percent more than in the 1971-72 fiscal year. Of the districts with Title I projects, only 69 percent reported using the Title I funds available to them for parent involvement. The total expenditures and funding sources are presented in Table 26.

OBJECTIVES AND ACTIVITIES OF THE PARENT INVOLVEMENT COMPONENT

The major objectives of parent involvement in most projects concerned the effects of parent involvement on pupil achievement in reading and mathematics, parent attendance at school meetings, and participation in school activities and parent-teacher conferences. Few objectives stressed communication between the parents and the school, parent knowledge of the school program or of pupil progress, or parents helping the children to learn at home.

Specific objectives reported most frequently by 300 projects included such criteria as 50 percent attendance at school meetings, 55 percent participation in school activities, or 75 percent attendance at one or more parent-teacher conferences. Objectives referring to pupil achievement usually mentioned such criteria as median grade-level performance, month-for-month gains, or a normal range and distribution of test scores. Approximately 41 percent of the objectives reported were stated in unmeasurable terms, referring vaguely to such goals as increased parent participation, awareness, or involvement.

The most infrequent parent involvement objectives reported (only 1 percent of the projects) were positive responses to home visits, increased interest in pupil development, and parent tutoring of children.

Parent involvement activities sought to increase the opportunities for contacts between parents and the school. The specific activities reported as most important were as follows, in order of frequency: parent advisory committee meetings, parent conferences, workshops and classes, use of parents as aides or volunteers, school meetings, home visits, student activities, communications and newsletters, classroom visitations, and open house programs.

Relatively few specific activities included two of the major objectives reported--improved pupil achievement in reading and mathematics and positive parent attitudes toward the school. Presumably most of the activities listed would contribute to a greater or lesser degree toward attainment of these objectives.

Little relation was noted between the activities stated most frequently in measurable objectives and their importance as reported in project evaluations. Major discrepancies were found in four activities. Parent advisory committee meetings and workshops and classes ranked high in importance, yet occurred infrequently as stated objectives. Specific student activities and parent questionnaires ranked low in importance, but high in frequency of occurrence in project objectives.

EVALUATION OF THE PARENT INVOLVEMENT COMPONENT

Effectiveness of the parent involvement component was evaluated primarily on the basis of the number of parents participating in the activities provided. An analysis of 527 evaluation reports revealed that effectiveness was measured approximately 51 percent by enumeration of participants and activities, 34 percent by subjective judgments, and 15 percent by objective measurements.

These figures show a substantial increase in the use of subjective judgment over the previous year and a decrease in objective measurement.

Of the reports with enumeration data, 41 percent were tabulations of the number of parents participating in activities. Other data most frequently reported were attendance figures, the number of home visits made, and number of home-school contacts.

Of the subjective judgments reported, 31 percent were based on parent comments; 19 percent on staff evaluation; 18 percent on teacher opinions; and 17 percent on records and reports. In addition, 11 percent of the subjective judgments included responses of parent advisory committee or aides.

The objective measurements consisted largely of parent questionnaires. More than 73 percent of the projects used rating scales, attitude scales, or other kinds of measuring instruments. Many projects also relied upon minutes of meetings in evaluating component effectiveness.

Although 42 percent of the projects reported improved pupil achievement as their major objective, only 13 percent listed "pupil performance" as a measure of the effectiveness of the various parent involvement activities provided.

RESULTS OF THE PARENT INVOLVEMENT COMPONENT

Of the 309 projects reporting measurable objectives for the parent involvement component, 27 percent achieved their objectives, 18 percent

TABLE 26

Expenditures for Parent Involvement in ESEA, Title I Projects in California, by Funding Source, 1972-73

Funding Source	Expenditures	Percent of Total
ESEA, Title I	$3,844,404	96.4
District funds	51,735	1.3
Other	93,291	2.3
Total	$3,989,430	100.0

attained part of their objectives, 17 percent reported negative results, and 38 percent reported results not related to their stated objectives.

Results compared with objectives showed a positive relation between the statement of measurable objectives and results obtained. Very few projects with vague objectives reported positive results; most such projects reported irrelevant results.

Reports of 516 projects rated the level of effectiveness of major activities provided in terms of meeting their project objectives. Parent involvement activities were rated mostly as "effective" or "very effective." The most effective activities were parent-teacher conferences, open house programs, communications, and home calls and visits. The least effective, according to project ratings, were PTA meetings, training of parents as tutors, use of parents as volunteers, and planning sessions.

A comparison was made between the relative importance and effectiveness of the major parent involvement activities, as rated by project personnel. Results are summarized in Figure 4. The greatest discrepancies were in four specific activities. School open house programs and cultural programs ranked low in importance but high in effectiveness. In contrast, use of parent volunteers and workshops and classes for parents ranked high in importance but low in effectiveness.

Despite the discrepancies, a significant correlation existed between the rank order in importance of the major parent involvement activities and relative effectiveness of the activities.

Positive results of parent involvement most frequently reported are summarized in Table 27. This table includes only the specific outcomes indicated by the 140 projects reporting positive results in relation to measurable objectives.

Parent involvement activities most frequently resulted in improvement in pupil performance, increased attendance at parent conferences and school meetings, more positive parental attitudes, and an increase in parent time spent as volunteers or aides. Very few projects reported greater community participation, attendance at PTA meetings, or more involvement in planning as a result of parent involvement activities.

These results reflect more emphasis on improving pupil performance and less emphasis on parent involvement in project planning than during the previous year.

	8 Most Important	7 Least Important
8 Most Effective	Parent-teacher conferences Communications with home Home calls and visits Use of parents as aides Advisory committee meetings School parent meetings	Open House programs Cultural programs
7 Least Effective	Parent workshops and classes Use of parent volunteers	Visits to classrooms Social activities Planning sessions Training in tutoring PTA meetings

Fig. 4. Relative importance and effectiveness of 15 major parent involvement activities provided by 516 projects in California, 1972-73

TABLE 27

Positive Results of Parent Involvement Most Frequently Reported in Relation to Measurable Objectives in 140 ESEA, Title I Projects in California, 1972-73

Rank Order	Specific Results Reported	Projects Reporting	
		Number	Percent
1	Improvement in pupil performance	39	27.9
2	Increased attendance at parent conferences	38	27.1
3	More positive parent attitudes	32	22.9
4	Increased attendance at school meetings	26	18.6
5	Increase in volunteer or aide time	25	17.9
6	Improved attendance at advisory meetings	20	14.3
7	Greater attendance at school programs	17	12.1
8	Increased parent knowledge or understanding	12	8.6
9	Greater number of contacts made by school	10	7.1
10	More visits to classrooms by parents	9	6.4
11	Increase in number of home visits	8	5.7
12	More participation in classes and workshops	7	5.0
13	Increase in communications with home	6	4.3
14	More help given student at home	5	3.6
15	Increased attendance at social activities	4	2.9
16	More involvement in planning activities	3	2.1
17	Attendance at PTA meetings	2	1.4
18	Greater community participation	1	0.7

SUMMARY OF THE PARENT INVOLVEMENT COMPONENT

Parent involvement attempted to improve communication between the school and the community. More than 225,000 parents and school personnel participated in parent involvement activities during 1972-73. Both the number of participants and the amount of Title I expenditures for parent involvement increased in comparison to the previous year.

The major component objectives were to improve pupil achievement in reading and mathematics and to increase parent attendance at school meetings as well as their participation in school activities. Little emphasis was placed on improving communication between the parents and the school, increasing knowledge of the school program or of pupil progress, or helping children to learn at home.

Specific activities reported as most effective in attaining the component objectives were parent-teacher conferences; school open house programs; communications with the home, including home calls and visits; and school cultural programs.

About two-fifths of the projects reported positive results, attaining all or part of their stated objectives. Another one-fifth did not attain their objectives. Results not related to stated objectives were reported by two-fifths of the projects.

The major results of parent involvement activities included improvement in pupil performance; increased attendance at parent-teacher conferences, school meetings, and advisory committee meetings; development of more positive parent attitudes; and an increase in parent volunteer and aide time.

Parent involvement activities considered the most important were generally those that produced the most positive results.

Intergroup Relations Component

The intergroup relations component comprises those activities designed primarily to alleviate racial, social, or linguistic isolation. Intergroup relations programs foster interaction between groups of children from different ethnic, cultural, and socioeconomic backgrounds. Intergroup relations include, but are not limited to, cultural programs, school activities, ethnic studies, and student exchange programs.

PARTICIPANTS IN THE INTERGROUP RELATIONS COMPONENT

A total of 380,552 students, parents, school personnel, and others participated in intergroup relations activities during 1972-73, including many non-Title I students participating in exchange programs. Of the districts receiving Title I funds, 62 percent reported intergroup relations activities--a decrease of 13 percent from the previous school year.

School districts spent $3,832,672 in Title I funds for intergroup relations activities during the year--50 percent more than the amount spent in 1971-72. The sources and amounts of funds spent for intergroup relations are given in Table 28.

OBJECTIVES AND ACTIVITIES OF THE INTERGROUP RELATIONS COMPONENT

The major intergroup relations objectives reported by 511 projects were related to such end results as improvement in pupil achievement, knowledge of ethnic group contributions, more positive attitudes, and a greater understanding and acceptance of the various groups represented. Approximately 77 percent of the projects reported measurable performance objectives; 23 percent indicated vague goals or aims.

Of the objectives listed, 22 percent referred to such specific changes in behavior as more positive attitudes and improved self-image or pupil behavior.

About 20 percent of the objectives related to such desirable goals as increased intergroup acceptance, interaction, awareness, or appreciation of group differences. About 19 percent of the objectives specified the acquisition of knowledge; that is, knowledge of the contribution of the different groups to society, ethnic facts, cultural heritage, and characteristics of the various groups. Specific groups mentioned most frequently were Mexican-American, black, American Indian, and Oriental. Approximately 16 percent of the objectives were stated in terms of student achievement in reading and mathematics. Another 16 percent mentioned participation in school activities, cultural programs, or ethnic studies.

Only 7 percent of the objectives were related to providing services, activities, experiences, or multiethnic materials.

Intergroup relations activities focused on opportunities designed to attain the component objectives, especially interaction between students from different racial, cultural, and socioeconomic backgrounds. The most significant intergroup activities included, in order of importance, cultural programs, school activities, use of multiethnic materials, ethnic studies, exchange programs, inservice workshops, group discussions, academic instruction, social activities, and bilingual communications.

There was a direct relation between the frequency of activities included in objectives and their importance as rated by project personnel. However,

there were major discrepancies found in three activities--exchange programs, tutoring, and special recognitions. Exchange programs ranked high in importance, yet occurred infrequently in stated objectives. Tutoring and special recognitions ranked low in importance, but high in project objectives.

EVALUATION OF THE INTERGROUP RELATIONS COMPONENT

Reports submitted by 439 projects listed more than 90 evaluation instruments or methods used to determine the effectiveness of intergroup relations activities. Of these, about 51 percent were based on subjective judgments; 33 percent, on enumeration or counting procedures; and 16 percent, on objective measurements. These figures show a substantial increase over the previous year in the use of subjective judgment and a decrease in objective measurement.

The subjective judgments were based primarily on teacher opinions, observations, and staff evaluations. Other methods used were student responses, records, and parent comments. Only 14 projects reported using opinions of aides as part of their evaluations.

Counting, or enumeration, was predominant in evaluating intergroup relations. These procedures consisted mostly of counting the number of participants in activities, particularly pupils. Other data included the use of multiethnic materials, number of activities provided, and parent attendance at such activities. About 12 percent of the projects reported reduced incidence of intergroup conflicts or encounters as an index of component effectiveness.

Objective measurements included questionnaires, measures of pupil performance, tests of intergroup knowledge, and staff surveys. More than 16 percent of the objective evaluations were based upon locally constructed measures of cultural, racial, or ethnic information. However, about one-fourth of the projects that mentioned such instruments in their stated objectives failed to use any objective measurements at all. Of the 81 projects that included positive attitudes in their objectives, 84 percent used attitude scales in their evaluations. In contrast, of the 56 projects listing increased friendship and interaction between groups as objectives, only 11 percent used sociograms to evaluate results.

Although only 31 percent of the projects reported improved pupil achievement as their primary objective, 33 percent listed "pupil performance" as one means for evaluating the effectiveness of different intergroup relations activities provided.

TABLE 28

Expenditures for Intergroup Relations in ESEA, Title I Projects in California, by Funding Source, 1972-73

Funding Source	Expenditures	Percent of Total
ESEA, Title I	$ 3,832,672	88.2
District Funds	432,399	10.0
Other	77,460	1.8
Total	$ 4,342,531	100.0

RESULTS OF THE INTERGROUP RELATIONS COMPONENT

Of the 391 projects reporting measurable objectives, 29 percent achieved their objectives, 13 percent attained part of their objectives, 18 percent did not achieve their objectives, and 40 percent reported results unrelated to their stated objectives.

Reports from 449 projects included effectiveness ratings of intergroup relations activities provided in terms of meeting their project objectives. Most activities were rated as "effective" or as "very effective." The ratings show that the most effective activities were school integration, group discussions, academic instruction, and school activities. The least effective, according to ratings of project personnel, were student exchange programs, parent meetings, staff inservice workshops, and interaction events.

The relative importance and effectiveness of the major intergroup relations activities, as rated by project personnel, were compared. The results appear in Figure 5.

Discrepancies were noted in rating most of the activities reported. The most important discrepancies were in school integration, student tutoring, and serving of "ethnic" food, all of which ranked low in importance but high in effectiveness. Because of these discrepancies, there was a slightly negative correlation between the rank order of the major intergroup relations activities on importance and effectiveness.

Positive results reported in relation to objectives are summarized in Table 29, based upon the data submitted by the projects with measurable performance objectives.

Intergroup relations activities were effective, as was evident from the resulting increase in participation, interaction between groups, positive pupil attitudes, and knowledge of cultural heritage and history. Also noted were improvement in pupil academic achievement and increases in exposure to cultural information and in the number of activities provided. Very few projects reported an increase in pupil self-confidence or more positive teacher attitudes as a result of intergroup relations activities.

These results reflect more emphasis on improving pupil achievement and providing information and activities and less emphasis on improving pupil self-image and teacher attitudes than during the previous year.

	8 Most Important	7 Least Important
8 Most Effective	Group discussions School activities Cultural programs	School integration Academic instruction Student tutoring Serving "ethnic" food Social activities
7 Least Effective	Use of multi-ethnic materials Ethnic studies units Interaction events Staff inservice workshops Student exchange programs	Group counseling Parent meetings

Fig. 5. Relative importance and effectiveness of 15 major intergroup relations activities provided by 449 projects in California, 1972-73

TABLE 29

Positive Results of Activities in Intergroup Relations Most Frequently Reported in Relation to Stated Objectives in 320 ESEA, Title I Projects in California, 1972-73

Rank Order	Specific Results Reported	Projects Reporting	
		Number	Percent
1	Increased participation in activities	74	23.1
2	Greater interaction between groups	54	16.9
3	More positive pupil attitudes	50	15.6
4	Increase knowledge of group characteristics	32	10.0
5	Improved pupil academic achievement	31	9.7
6	Greater exposure to cultural information	30	9.4
7	More knowledge of cultural and ethnic facts	29	9.1
8	More activities provided	28	8.8
9	Increased knowledge of intergroup contributions	27	8.4
10	Greater intergroup acceptance	26	8.1
11	Closer parent relationships	25	7.8
12	More knowledge of cultural heritage	23	7.2
13	Improved pupil self-image	21	6.6
14	Fewer intergroup conflicts	20	6.3
15	Greater use of multi-ethnic materials	19	5.9
16	More friends chosen from other groups	11	3.4
17	Better community relations	10	3.1
18	Improved school attendance	9	2.8
19	More positive teacher attitudes	6	1.9
20	Increase in pupil self-confidence	5	1.6

SUMMARY OF THE INTERGROUP RELATIONS COMPONENT

The intergroup relations component was designed primarily to reduce isolation between different ethnic, cultural, racial, or social groups.

During 1972-73 more than 380,000 participants--students, parents, school personnel, and others--shared in intergroup activities. Both the number of participants and the total expenditures were greater than in 1971-72.

The major objectives of intergroup relations activities were to improve pupil academic achievement, increase knowledge of ethnic group contributions, develop more positive attitudes, and achieve greater understanding and acceptance among the different groups.

Reports indicated that about two-fifths of the projects attained all or part of their stated objectives; about one-fifth of the projects did not. The remaining two-fifths of the projects reported irrelevant results.

Intergroup activities most effective in attaining the component objectives included school integration, group discussions, academic instruction, school activities, and student tutoring.

Positive results reported most frequently were increased participation in activities, greater interaction between groups, more positive pupil attitudes, increased knowledge of group characteristics and contributions, and improved academic achievement. Other results included more exposure to cultural information, more knowledge of cultural and ethnic facts, more activities, and greater intergroup acceptance.

The intergroup relations activities considered to be most important were not necessarily those that produced the most positive results.

Staff Development Component

School districts operating compensatory education programs in California are required to develop inservice training for all personnel involved with Title I students. The primary purpose of the staff development component is to provide continuing inservice activities to help improve the compensatory education program at the school and classroom levels.

PARTICIPATION IN THE STAFF DEVELOPMENT COMPONENT

The greatest emphasis in staff development during 1972-73 was on inservice training of classroom teachers and aides. The number and types of persons participating in staff development activities are presented in Table 30.

Eighty-one percent of the projects reported staff development activities. Staff participation at both the elementary and secondary levels was greatest in language development inservice activities, especially reading instruction.

More than $4 million was spent for staff development from several categorical aid sources. Of this amount, 84 percent, or $3,611,000, was from Title I funds, leading to a cost per participant from this source of about $105. The amounts spent from each funding source are presented in Table 31.

The number of activities provided by the component topic is given in Table 32, as well as the number of participants, the approximate cost per activity, and the estimated cost per participant.

OBJECTIVES AND ACTIVITIES OF THE STAFF DEVELOPMENT COMPONENT

The major staff development component objectives reported by 511 projects were related to such outcomes as improvement in pupil achievement, the provision of inservice activities, increased teaching skills and knowledge, and improved attendance at training sessions. Approximately 82 percent of the projects reported measurable performance objectives; only 18 percent indicated relatively vague aims or program goals.

Of the specific objectives listed, the most frequent were improved pupil achievement, use of diagnostic and prescriptive teaching techniques, and implementation of individualized instruction methods. Other primary objectives included providing inservice training activities, learning about individualized instruction, and demonstrating improved teaching skills. Few objectives stressed visiting other programs, improving pupil attitudes, or developing new methods or materials.

Staff development activities were designed primarily to provide a continuing inservice education program to staff members. Activities were generally developed by school districts in response to local needs assessment surveys. The general activities most important in attaining the component objectives were reported as follows, in order of frequency: workshops, inservice meetings, specific training, visitations, use of consultants, professional conferences, use of resource specialists, individual conferences, college courses, and seminars or mini-courses.

The most important specific activities listed were staff meetings, workshops on diagnostic and prescriptive techniques, workshops on individualizing instruction, and training sessions in language development. Relatively few projects reported activities involving self-evaluation, use of motion pictures, demonstrations, or independent study.

There was little relation between the rank order of activities stated most frequently in measurable objectives and their importance as reported in project evaluations. The major discrepancies were in two activities--workshops on understanding students and visitations to other programs. The understanding of students ranked relatively low in importance, yet occurred frequently in objectives. Visitations ranked high in importance but low in frequency of occurrence in stated objectives.

The only major objective for which few specific activities were designed was the attainment of improved staff attitudes. Presumably all of the activities listed would contribute toward achieving this objective.

EVALUATION OF THE STAFF DEVELOPMENT COMPONENT

Effectiveness of the staff development component was evaluated most often by informal means. Approximately 63 percent of the evaluations reported by 501 projects were subjective judgments; 25 percent included objective measurements, and 12 percent emphasized enumeration or counting.

These figures indicate an increase in the use of subjective judgment over the previous year's reports and a decrease in objective measurement.

TABLE 30

Number and Types of Persons Participating in Staff Development Activities in 537 ESEA, Title I, Projects in California, 1972-73

Type of Personnel	Number Participating	Percent of Total
Public School Personnel		
Classroom teachers	14,642	43.6
Instructional aides or assistants	9,237	27.5
Volunteers	2,503	7.4
Reading Specialists	1,462	4.3
Directors, coordinators, resource personnel	1,163	3.5
Community aides	863	2.6
Mathematics specialists	588	1.8
Clerks, custodians	474	1.4
ESL specialists	342	1.0
Nurses	324	1.0
Counselors	288	0.9
Librarians	257	0.8
Psychologists, psychometrists	246	0.7
Evaluators	182	0.5
Social workers, attendance counselors	68	0.2
Other personnel	950	2.8
Total Public School Personnel	33,589	100.0
Non-Public School Personnel		
Classroom teachers	401	53.0
Instructional aides or assistants	271	35.9
Other personnel	84	11.1
Total Non-Public School Personnel	756	100.0

Subjective judgments used most frequently were based upon teacher opinions and staff evaluations. Other methods included staff implementation, observations, and records and reports. Measures of student behavior, interviews, and pupil responses were seldom used.

Objective measurements most often included questionnaires, rating scales, test results, and student performance. Very few projects used attitude scales or school attendance to measure component effectiveness.

Counting or enumeration methods were not predominant in evaluating staff development. When used, they consisted primarily of counting the number of participants in activities. Only 8 percent of the projects reported the number of activities as a measure of component effectiveness.

Evaluation measures did not vary greatly according to specific subject areas, but they did vary according to the type of inservice activity provided.

Staff evaluations, for example, were most often used to evaluate inservice meetings in language development and mathematics; numbers of participants, to evaluate parent involvement activities; teacher opinions, to evaluate demonstrations and informal workshops; and staff implementation, to evaluate use of new materials and equipment.

Although only 34 percent of the projects reported improved pupil achievement as a major objective, 50 percent listed "student performance" as a measure of the effectiveness of various staff development activities in meeting their objectives.

RESULTS OF THE STAFF DEVELOPMENT COMPONENT

Of the 421 projects reporting measurable objectives for the staff development component, 29 percent achieved their objectives, 15 percent attained part of their objectives, 14 percent did not achieve their objectives, and 42 percent reported results not related to their stated objectives.

When results were compared with stated objectives, there was a positive relation between the statement of measurable objectives and the results obtained.

TABLE 31

Expenditures for Staff Development Activities in 431 ESEA, Title I, Projects in California, by Funding Source, 1972-73

Funding Source	Expenditure	Percent of Total
Federal		
ESEA, Title I	$3,611,083	83.7
State		
Miller-Unruh Basic Reading Act . . .	73,579	1.7
Special Teacher Employment Programs.	37,470	0.9
Local		
District Supplementary Funds	183,355	4.3
Other	406,707	9.4
Total	$4,312,194	100.0

Evaluation reports of 509 projects rated the effectiveness of specific staff development activities in meeting stated objectives. Most of the major activities provided were rated as "effective" or "very effective." The most effective were training in the techniques of reading instruction, informal workshops, language development inservice, and demonstrations. The least effective staff development activities were formal lectures, motion pictures, and inservice training in parent involvement and intergroup relations, as rated by project personnel.

Comparisons were made between the importance and effectiveness of staff development activities, as rated by project evaluations. Results are given in Figure 6. The greatest discrepancies were in three specific activities. The most significant was in the use of formal lectures or consultants, which ranked very high in importance but very low in effectiveness. Demonstrations and informal workshops, on the other hand, ranked low in importance and high in effectiveness.

No significant correlation was found between the ratings of staff development activities on importance and on effectiveness.

A summary of the positive results of staff development activities most frequently reported appears in Table 33. This table includes only the specific outcomes indicated by the 185 projects reporting positive results in relation to measurable objectives.

Positive results of staff development activities most frequently reported were greater use of diagnostic and prescriptive techniques, more individualized instruction, improved pupil achievement, knowledge of individualized instruction, increased attendance at meetings, and improved teaching skills. Very few projects reported improved needs assessments, better pupil attitudes, or increased factual knowledge as a result of staff development activities.

These results reflect more emphasis on diagnostic-prescriptive techniques and individualized instruction. Less emphasis was placed on inservice training in the noninstructional components than during the previous year.

TABLE 32

Activities, Participants, and Relative Costs of Staff Development in 482 ESEA, Title I, Projects in California, 1972-73

Component Topic	Number of Activities	Number of Participants	Approximate Cost per Activity	Approximate Cost per Participant
Language Development	10,227	19,417	$107	$56
Mathematics	7,948	16,308	111	54
Parent Involvement	4,003	14,561	148	41
Auxiliary Services	3,430	10,077	132	45
Intergroup Relations	3,356	15,963	175	37

TABLE 33

Positive Results of Staff Development Activities Most Frequently Reported in Relation to Stated Objectives in 185 ESEA Title I, Projects in California, 1972-73

Rank Order	Specific Results Reported	Projects Reporting	
		Number	Percent
1	More diagnostic-prescriptive techniques	46	24.9
2	More individualized instruction	44	23.8
3	Improved pupil achievement	43	23.2
4	Learning about individualized instruction	32	17.3
5	Attendance at meetings	27	14.6
6	Inservice training provided	26	14.1
7	Improved teaching skills	25	13.5
8	Specific staff objectives attained	13	7.0
9	Learning about improved skills	12	6.5
10	Increased understanding of students	11	5.9
11	Use of more performance objectives	10	5.4
12	Better staff attitudes	9	4.9
14	Measurement of activity effectiveness	8	4.3
14	Increased understanding of Title I program	8	4.3
14	New methods and materials developed	8	4.3
16	Improved program evaluation	7	3.8
17	Better classroom management	6	3.2
19	Improved communication	5	2.7
19	Learning about use of materials	5	2.7
19	Visits to other programs	5	2.7
21	Increased factual knowledge	4	2.2
22	Better pupil attitudes	3	1.6
23	Needs assessment instituted	2	1.1

	7 Most Important	7 Least Important
7 Most Effective	Techniques of reading instruction Language development inservice Use of new materials, equipment Diagnostic-prescriptive teaching Techniques of math instruction	Informal workshops Demonstrations
7 Least Effective	Mathematics inservice Formal lectures (consultants)	Auxiliary services inservice College classes Intergroup relations inservice Parent involvement inservice Motion pictures

Fig. 6. Relative importance and effectiveness of 14 major staff development activities provided by 509 projects in California, 1972-73

SUMMARY OF THE STAFF DEVELOPMENT COMPONENT

Four out of every five participating school districts provided continuing inservice activities for Title I personnel during 1972-73. The greatest emphasis was on the training of those persons who work directly with students in the classroom.

More than 33,000 public and nonpublic school personnel participated in staff development activities at a cost of over $4 million, 84 percent of which came from Title I funds. Most of the participants were classroom teachers and teacher aides.

Staff development objectives emphasized improving pupil achievement, providing inservice training sessions, increasing instructional skills and knowledge, and improving attendance at training sessions.

The most effective staff development activities reported by project personnel were inservice training in techniques of reading instruction, informal workshops, language development inservice training, demonstrations, and the use of new materials and equipment.

About 44 percent of the projects achieved their stated objectives in whole or in part; 14 percent did not achieve their objectives. About 42 percent reported results not related to their primary objectives.

Results of staff development activities most frequently reported by successful projects included the following: the use of more diagnostic-prescriptive techniques, more individualized instruction, improved pupil achievement, attendance at meetings, and the provision of inservice training sessions. Other results were improved teaching skills, attainment of specific objectives, learning about skills improvement, and increased understanding of students.

Staff development activities considered the most important were not necessarily those that produced the most effective results.

Cooperative Projects

All Title I projects with entitlements of less than $25,000 were required to join with other small projects within the same area to provide comprehensive educational programs. Through such cooperative planning, children in the smaller programs were provided with a greater variety of services and materials than would have been possible in separate projects functioning independently. Such planning also made possible a reduction in overall administrative costs as well as a reduction in teacher-pupil ratios and related class workloads.

PARTICIPATION IN COOPERATIVE PROJECTS

During 1972-73, 77 cooperative projects were organized to serve 741 public and nonpublic elementary and high schools in 483 districts throughout the state. The total Title I funding for the cooperative projects was approximately $9,877,332, or almost 10 percent of the total Title I funds available in California. When Title I funds were combined with state and local monies, they provided for an average per-pupil cost of $377, representing a decrease of 11.9 percent in per-pupil expenditures from 1971-72. The sources and amount of funds available to cooperative projects are presented in Table 34.

During 1972-73 the cooperative projects served 30,126 children enrolled in preschool through grade twelve, 98.5 percent of them in public schools. Table 35 indicates the number of children, by grade level, who participated in cooperative projects.

The implementation of cooperative projects required the hiring of additional staff members for both teaching and nonteaching positions. Teachers and specialists were hired for the preschool through high school level. The nonteaching personnel included teacher aides, librarians, nurses, community liaison personnel, and counselors. Table 36 shows the number of positions supported by Title I funds in cooperative projects during 1972-73.

OBJECTIVES AND ACTIVITIES IN COOPERATIVE PROJECTS

Title I cooperative projects sought to improve the performance level of qualified children by concentrating on language development and mathematics, stressing special assistance through individualized instruction. This was accomplished through augmented assistance by instructional aides, adult tutors, and student tutors, and through regularly scheduled periods away from the classroom under the direction of teaching specialists.

Through the use of diagnostic procedures and the assessment of needs, teachers were able to adjust instructional programs and materials to student requirements.

EVALUATION AND RESULTS OF COOPERATIVE PROJECTS

Student progress was evaluated through pretest and post-test comparisons of standardized achievement tests. The cooperative projects relied heavily upon California's mandated testing programs in grades one, two, three, and six, with complementary measures in kindergarten and grades four and five as well as in the high school grades.

Average months of gain in reading skill per month of instruction were computed for children in grades one through twelve by using standardized measures on a pretest and post-test schedule. Because of the small number of students in nonpublic schools served by cooperative proj-

ects, statistics for students in both public and nonpublic projects were combined. Test results indicated that reading achievement gains for students in cooperative projects closely paralleled results obtained in the larger projects throughout the state.

LANGUAGE DEVELOPMENT AND MATHEMATICS

Results indicated that with seven months between pretesting and post-testing, students in cooperative projects, on the average, achieved at least one month's gain in reading achievement for each month's participation in the program.

Findings also revealed that more than 77 percent of the public school students participating in cooperative projects achieved moderate (0.7 to 1.4 years) to substantial (1.5 years and more) growth in reading during the seven months of instruction between pretesting and post-testing. Reading achievement results by months of gains and percent of gain are presented in tables 37 and 38 respectively.

Standardized achievement tests were also administered on a pretest and post-test basis to determine gains in mathematics skills by students in grades one through twelve participating in cooperative projects. Results indicated that mathematics gain score patterns by grade level for the cooperative projects were similar to those demonstrated in the larger districts statewide.

With seven months of elapsed time between pretesting and post-testing, it was found that students typically achieved a month's growth in mathematics achievement for each month of enrollment in the Title I program.

Analysis of student gains in mathematics revealed that 78 percent of public school students in the cooperative projects achieved moderate (0.7 to 1.4 years) to substantial (1.5 years and more) gains in mathematics during the seven months of instruction between pretesting and post-testing. Mathematics achievement results by months of gain and percent of gain are listed in tables 39 and 40, respectively.

TABLE 34

Expenditures for Cooperative Projects Activities in ESEA, Title I Projects in California, by Funding Source, 1972-73

Funding Source	Expenditure	Percent of Total
Federal		
ESEA, Title I	$ 9,877,332	86.9
State		
Miller-Unruh Basic Reading Act	590,216	5.2
Special Teacher Employment Program	45,216	.4
Local		
District Supplementary Funds	707,408	6.2
Other	146,849	1.3
Total	$11,367,737	100.0
Expenditure per student	$377	

AUXILIARY SERVICES

One of the four supportive components required by each project was auxiliary services. This component extended health services, pupil personnel services, and library services to all Title I participants.

Health services were provided by additional personnel funded by Title I, or the services were included in the program by the offices of district or county superintendents of schools. Such services were primarily provided by one or more nurses, nurse's aides, or volunteers. Children were tested for vision and hearing, and attention was given to specific health and dental problems. In most cases the nurse served as the liaison between the home, school, and other agencies within the community. Conferences on corrective measures were conducted with parents, and follow-up programs were outlined. When possible other programs were provided by the schools.

TABLE 35

Number of Students Participating in ESEA, Title I, Cooperative Projects in California, by Grade Level, 1972-73

Grade Level	Number of students enrolled		Total	Percent of total	
	Public Schools	Nonpublic Schools		Public Schools	Nonpublic Schools
Preschool	74	0	74	100.0	.0
Kindergarten	3,002	0	3,002	100.0	.0
One	4,488	44	4,532	99.0	1.0
Two	4,897	77	4,974	98.5	1.5
Three	4,697	69	4,766	98.6	1.4
Four	3,793	63	3,856	98.4	1.6
Five	3,108	65	3,173	98.0	2.0
Six	2,016	38	2,054	98.1	1.9
Seven	463	14	477	97.1	2.9
Eight	409	0	409	100.0	.0
Nine	1,404	25	1.429	98.3	1.7
Ten	726	0	726	100.0	.0
Eleven	406	1	407	99.8	.2
Twelve	165	0	165	100.0	.0
Ungraded	41	41	82	50.0	50.0
Total	29,689	437	30,126	98.5	1.5

Workshops for Title I staff offered instruction to teachers to assist them in identifying health programs. Nurses reported improved health for children when corrective measures could be taken.

Pupil personnel services were provided on an individual and group basis for elementary and high school students. Conferences were scheduled according to student needs and counselor workload. Counselors frequently served several schools and assisted educational programs by interpreting test results; analyzing learning and behavioral problems; providing student, teacher, and parent counseling; interpreting programs; and providing assistance for pupil testing. Workshops were organized by guidance personnel to assist staff members with behavior modification techniques and to establish performance objectives.

TABLE 36

Number of Positions Supported by ESEA, Title I, Funds in Cooperative Projects in California, 1972-73

Position	Number of positions, by time employed		
	Full-time	Half-time or more	Less than half-time
Teaching			
Preschool	3	1	1
Kindergarten	4	0	2
Elementary	108	47	28
Secondary	15	15	24
Reading Specialist	115	83	32
ESL Specialist	16	0	1
Mathematics Specialist	39	51	30
SUBTOTAL	300	197	118
Nonteaching			
Instructional teacher aide	398	761	401
Community aide	19	3	18
Librarians	2	4	8
Director	9	10	22
Supervisor/coordinator	5	14	29
Counselor	5	3	11
Psychologist	1	4	26
Psychometrist	2	0	1
Evaluator	0	0	10
Social worker	1	2	1
Attendance counselor	0	0	2
Nurse	4	5	26
Clerk/secretary	16	14	31
Adult tutors	12	4	22
Student tutors	0	0	16
Volunteers	41	25	1,477
Others	9	8	17
SUBTOTAL	524	857	2,118
TOTAL	824	1,054	2,236

Library services were implemented in the majority of projects in varying degrees. A few projects included scheduled periods in the library for specific help with librarians or aides as an integral part of the program. In other projects, librarians served as a central source of materials for classroom information and study.

PARENT INVOLVEMENT

The parent involvement component was designed to inform parents of school instructional programs, to provide information on the child's progress, and to encourage the parent's active participation in the program and

TABLE 37

Average Reading Achievement by Public School Students Participating in ESEA Title I, Cooperative Projects in California, by Grade Level, 1972-73

Grade level	Number of students tested	Average grade equivalent scores		Average months of gain between pre- and post-testing
		Pretest	Post-test	
One	1,872	0.9	1.6	.7
Two	3,886	1.4	2.4	1.0
Three	4,010	1.9	2.9	1.0
Four	3,179	2.6	3.5	.9
Five	2,534	3.3	4.2	.9
Six	1,685	3.9	4.8	.9
Seven	386	4.2	5.6	1.4
Eight	228	4.5	5.8	1.3
Nine	1,055	5.6	6.5	.9
Ten	459	5.9	6.8	.9
Eleven	235	6.2	7.4	1.2
Twelve	97	6.3	7.3	1.0

in the child's school experiences in other ways. Activities included school visitations, assistance in the classroom, organized meetings to assist non-English-speaking parents, and parent-teacher conferences.

TABLE 38

Reading Achievement Gains by Public School Students Participating in ESEA Title I, Cooperative Projects in California, by Grade Level, 1972-73

Grade Level	Number of Students	Percent of Students Tested			
		Substantial	Moderate		Little or None
		1.5+	1.0 to 1.4	0.7 to 0.9	0.6 or Less
One	2,189	2.4	7.3	32.4	57.9
Two	3,912	3.5	43.7	40.3	12.5
Three	4,046	3.7	49.9	39.7	6.7
Four	3,180	4.3	39.4	37.5	18.8
Five	2,540	7.8	30.0	32.4	29.8
Six	1,697	7.8	35.9	25.9	30.4
Seven	386	23.3	51.0	23.6	2.1
Eight	228	16.2	32.5	47.8	3.5
Nine	1,061	15.3	36.6	8.3	39.8
Ten	486	14.8	28.2	28.4	28.6
Eleven	243	23.8	49.0	17.3	9.9
Twelve	103	33.0	15.6	5.8	45.6
Total or Average	20,071	6.3	37.1	34.0	22.6
			71.1		

INTERGROUP RELATIONS

The intergroup relations component sought to provide cultural, social, and ethnic experiences that were aimed at building a better understanding of minority groups in the community. Specific objectives of the intergroup relations component included presenting information on the contributions of other ethnic groups, promoting better understanding between staff members and parents, alleviating school and racial isolation, increasing group contacts through recreational and instructional activities, and strengthening learning activities for community groups through meetings and workshops.

TABLE 39

Average Mathematics Achievement by Public School Students Participating in ESEA, Title I, Cooperative Projects in California, by Grade Level, 1972-73

Grade level	Number of students tested	Average grade equivalent scores		Average months of gain between pre- and post-testing
		Pretest	Post-test	
One	1,826	1.0	1.7	.7
Two	3,597	1.6	2.4	.8
Three	3,724	2.2	3.2	1.0
Four	2,992	2.9	3.9	1.0
Five	2,386	3.6	4.6	1.0
Six	1,601	4.3	5.1	.8
Seven	321	4.5	5.6	1.1
Eight	277	4.9	6.3	1.4
Nine	898	5.9	6.8	.9
Ten	374	6.3	7.2	.9
Eleven	156	6.4	7.6	1.2
Twelve	71	6.9	8.0	1.1

STAFF DEVELOPMENT

The staff development component provided teachers in the cooperative projects with opportunities to participate in workshops, conferences, visitations, and college extension programs. Curricula typically included individualized instructional methods in reading and mathematics, with emphasis on diagnostic and prescriptive techniques.

TABLE 40

Mathematics Achievement Gains by Public School Students Participating in ESEA, Title I, Cooperative Projects in California, by Grade Level, 1972-73

Grade Level	Number of Students	Percent of Students Tested			
		Substantial	Moderate		Little or None
		1.5+	1.0 to 1.4	0.7 to 0.9	0 6 or Less
One	2,104	2.7	14.8	40.4	42.1
Two	3,690	5.8	33.1	46.0	15.1
Three	3,754	5.1	42.9	36.4	15.6
Four	2,992	8,3	36.6	40.0	15.1
Five	2,393	6.3	47.9	30.8	15.0
Six	1,614	2.0	40.9	17.5	39.6
Seven	321	7 2	51.1	36.4	5.3
Eight	277	24.2	63.5	.0	12.3
Nine	980	11.1	31.5	19.9	37 5
Ten	401	10.0	23.4	22.5	44.1
Eleven	164	32.3	27.5	14.0	26 2
Twelve	79	8.9	43.0	7.6	40.5
Total or Average	18,796	6.4	36.6	34.9	22.1
			71.5		

Programs for Neglected and Delinquent Youth in Local Institutions

Fifty-nine educational agencies administered Title I programs for neglected and delinquent youths. A statewide allocation of $981,206 was expended for support of these programs, and the average expenditure of Title I funds per student participant was $140.

PARTICIPANTS IN THE PROJECTS FOR NEGLECTED AND DELINQUENT YOUTHS

The agencies primarily concerned with the administration of Title I programs for neglected and delinquent youths were the school districts of the participating schools, the participating offices of the county superintendents of schools, and to an extent, the staffs of the resident institutions involved. These offices served a total of 7,006 "neglected and delinquent youth" student participants during the period reported upon.

The number of administrative agencies and the unduplicated count of the children served in all projects under the program are shown in Table 41.

OBJECTIVES AND ACTIVITIES OF THE PROGRAM FOR NEGLECTED AND DELINQUENT YOUTHS

The primary objectives of most projects for neglected and delinquent youths were to improve the ability of the student participant to solve his personal problems, to raise his academic achievement level, and to promote an attitudinal change within himself and toward his peers, society, and educational institutions. The most frequent objectives stated in projects for neglected children included (1) enhancing the individual's self-image;

TABLE 41

Number of Administering Agencies and Children Participating in ESEA Title I, Programs for Neglected and Delinquent Youths, 1972-73

Administering Agencies	Number
Participating School Districts	35
Participating Office of County Superintendents of Schools	24
Total	59
Children Enrolled	
Programs for Neglected Children	2,341
Programs for Delinquent Children	4,665
Total	7,006

(2) developing a more positive attitude; (3) providing successful experiences; (4) increasing aspirational goals; (5) improving basic study skills; and (6) raising student expectations to achievement at a higher level in the academic subjects. Most frequent project objectives listed for delinquent youth included (1) promoting a more positive attitude; (2) developing a higher level of verbal functioning; (3) reducing the recurrence and severity of disciplinary problems; (4) providing techniques leading to improved self-discipline; (5) promoting habits of personal cleanliness; (6) enhancing learning through planned activities; (7) establishing higher life goals; and (8) raising the level of achievement in mathematics and reading.

To achieve project objectives, the educational staff in the majority of institutions concentrated on individual instruction and counseling as a major part of their planned activities. In addition to teachers and the staff of the institutions, paid classroom aides, home tutors, and volunteers from the community were utilized in the program. As a means of meeting the needs of student participants, a variety of activities were programed, such as individual and group counseling; camping trips; parent visitations; attitudinal surveys; field trips; attendance at and participation in sports events; psychological and achievement testing; exposure to music, art, and literary experiences; special science programs; remedial instruction; and speech therapy. Individual instruction assistance was rendered according to need by teachers, aides, or tutors. The assistance was programed during class hours, after school, or in the evening at the residence of the student participant.

Reported frequently as a successful program adjunct was the formalization of a performance contract with the student. These contract documents covered a varied combination of activities and included a time line for specific accomplishments and a contract termination date. In this way each student participant was directly involved in the planning of his own work and provided with a guideline for appraising his accomplishment.

Inservice activities for professional and paraprofessional staff members were reported by 78 percent of the agencies submitting data on their projects. Though this was fewer than anticipated, a high percentage of staff members participated in the following types of inservice activities: curriculum planning, development of measurement and evaluation instruments, parent and student counseling and follow-up, improvement in behavior modification techniques, utilization of library resources and instructional materials, attending to the problems of the neglected and delinquent child, coping with learning disabilities, and conducting studies on the cultural background of the institutionalized student. The reports on personnel training revealed that most of the inservice training concentrated on the following areas: (1) the cultural background of neglected and delinquent youth; (2) curriculum planning; and (3) developing measurement and evaluation instruments for the institutionalized youth. Of the many inservice topics considered, the utilization of instructional materials and library resources was the least emphasized in the staff development programs. Many agencies submitted positive statements regarding the results obtained through inservice training on student follow-up procedures. Such programs provided institutional staff members with better ways and means for communicating with the public schools, the teachers, and the involved parents. The follow-up service included guidance and counseling service to parents in the home as well as to the students when they were released from custodial care and returned to the community. A number of project evaluators stated that the follow-up procedures employed were an important factor in reducing the rate of recidivism.

EVALUATION OF THE PROGRAM FOR NEGLECTED AND DELINQUENT YOUTHS

For measuring attitude and behavior changes in students, staff members developed and implemented a variety of locally constructed instruments in addition to the regular teacher observation and student attendance records. Additional instruments which were used to evaluate student change included teacher-made tests, teacher/student questionnaires, student attitude surveys and check sheets, teacher/counselor observations, medical and counselor reports, and anecdotal records. Data from a combination of instruments enabled the reporting agencies to determine positive and negative changes that occurred during the period the children were institutionalized.

Guidance and counseling service in conjunction with individual instruction was reported by a number of project evaluators as a very effective means of bringing about student attitudinal changes while concentrating on the teaching of the basic skills. As an example of the success of this approach, one project director, working with 160 delinquent students, stated:

> Individualized programs, based on diagnosis of students' specific educational strengths and weaknesses as well as behavioral and attitudinal problems, proved to be effective in working with project students. However, the most successful aspect of the program was the individual help given to students by the Title I aides in a relatively relaxed, nonthreatening situation. These conclusions are based on observations [by the project teacher and/or aide] of improved attitudes and self-image in project students, the statements of other teachers and counselors relative to the progress of project students, comments made by project students concerning their own progress, and student gains on standardized and teacher-made instruments.

RESULTS OF THE PROGRAM FOR NEGLECTED AND DELINQUENT YOUTHS

The participation of students in the program lasted variously from less than a month to more than a year for some who were institutionalized. The transiency of the institutionalized youth lowered the average time of program participation per student to approximately five months. Although some positive and some negative changes occurred for each youth during the time he was in the program, the evaluation reports indicated greater achievement gains and more positive attitude and behavior changes for those children who remained for six months or more. Of the 7,006 participating youth, about 8 percent received instruction for 1 month or less, 19 percent, for 1 to 3 months, 33 percent, for 3 to 6 months, 31 percent, for 6 to 12 months, and 9 percent, for 12 to 18 months.

Both standardized tests and locally developed measures were used for evaluating student change. The impact of the language and mathematics components was determined by standardized tests unless the period of instruction was too short to obtain valid testing results. From the standardized test data in reading and mathematics, it was found that achievement ranged from no gain (in a few cases) to more than four months' growth for each month in the program. The agencies reported that many project participants achieved more than a month's gain for each month in school.

Average reading achievement gains were about 1.3 months for each month in school for those receiving instruction for less than six months. For those receiving instruction for six months or longer, the average rate of gain was about 1.8 months for each month in school.

For youths receiving instruction in mathematics for less than six months, a rate of gain of about 1.2 was recorded. For those continuing for six months or longer, the rate of gain was about 1.6 months of gain for each month of instruction. The reports pointed out that some children achieved grade level in reading and mathematics for the first time in their academic life.

Other beneficial changes mentioned frequently in the evaluation reports of the program component under discussion are summarized as follows:

- Increased communication and rapport between student, staff, and probation officials
- Increased interest and classroom participation
- Improved self-discipline and work habits
- Improved attitude of participant toward self, school, family, and society
- Reduced number of disciplinary problems
- Reduced rate of recidivism and improved behavior in society
- Improved personal and social habits
- Improved mental and physical health attitudes
- Improved relationship with home parent or natural parent
- Improved attitude toward learning and academic achievement

SUMMARY OF THE PROGRAM FOR NEGLECTED AND DELINQUENT YOUTHS

An analysis of program evaluation reports indicated that, in general, participants in programs for neglected and delinquent children have shown median aggregate gains in the two academic components that exceeded the project's academic objectives. Median gains in achievement were somewhat less for mathematics than for language, but the longer the student stays in the program, the greater are the gains in achievement in both mathematics and reading. The compensatory program gives the student participant a chance to succeed.

The evaluation results indicated a positive attitudinal change. Individualized instruction and counselor services made possible many more contacts with the student. These contacts aided measurably in the development of a more desirable social behavior. By fulfilling more meaningful project objectives, the participants showed considerable success in adjusting to the regular public school classroom. In addition, implementation of inservice training was of major assistance to instructors in improving their teaching techniques and understanding the delinquent and neglected child and his environment better.

The median achievement gain in reading and mathematics demonstrated by the project students exceeded the project's academic objective of better than one month's growth for each month of participation. Typically, those students who made the greatest improvement in reading and mathematics were the ones who also demonstrated an improved self-image and a more positive attitude toward school. Though proficiency in reading was a key objective in the program, the instructional activities supporting the reading component were often the vehicle that helped the student to develop those social skills necessary to relate positively with others. They helped him

to make realistic future plans, to improve his self-image, and to deal effectively with emotional stress.

Although the evaluating agencies reported many positive results from the compensatory programs for neglected and delinquent youths, they agreed there are a number of areas that warrant further consideration and attention. These included:

1. Establishing stronger lines of communication among the instructional staff in the institution centers, the probation officials, and the teachers in the school districts administering the instructional program
2. Developing ways and means to accommodate the relatively short instructional period available, due to rapid turnover of participants
3. Accelerating the building of rapport and mutual understanding between student and staff--again the more critical because of the nonstable enrollment
4. Locating and appropriating space to permit more individual tutoring
5. Acquiring sufficient funds to implement effective individual instruction and adequate counseling and follow-up service for students and to attract and retain staff members proficient in dealing with the educational and social problems of neglected and delinquent children

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